

UNITED STATES  
DEPARTMENT OF THE INTERIOR  
BUREAU OF LAND MANAGEMENT

APPLICATION FOR PERMIT TO DRILL OR REENTER

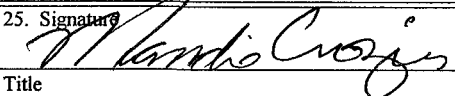
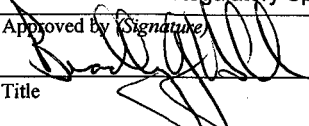
FORM APPROVED  
OMB No. 1004-0136  
Expires January 31, 2004

1a. Type of Work: <input checked="" type="checkbox"/> DRILL <input type="checkbox"/> REENTER		5. Lease Serial No. UTU-035521
1b. Type of Well: <input checked="" type="checkbox"/> Oil Well <input type="checkbox"/> Gas Well <input type="checkbox"/> Other <input checked="" type="checkbox"/> Single Zone <input type="checkbox"/> Multiple Zone		6. If Indian, Allottee or Tribe Name N/A
2. Name of Operator Newfield Production Company		7. If Unit or CA Agreement, Name and No. Jonah Unit
3a. Address Route #3 Box 3630, Myton UT 84052		8. Lease Name and Well No. Jonah Federal S-12-9-16
3b. Phone No. (include area code) (435) 646-3721		9. API Well No. 43-013-34010
4. Location of Well (Report location clearly and in accordance with any State requirements. *) At surface SE/SE 880' FSL 842' FEL At proposed prod. zone SWSE 1265' FSL 1605' FEL		10. Field and Pool, or Exploratory Monument Butte
14. Distance in miles and direction from nearest town or post office* Approximatley 17.4 miles southwest of Myton, Utah		11. Sec., T., R., M., or Blk. and Survey or Area Sec. 12, T9S R16E
15. Distance from proposed* location to nearest property or lease line, ft. (Also to nearest drig. unit line, if any) Approx. 1035' f/ise, 1265' f/unit	16. No. of Acres in lease 240.00	12. County or Parish Duchesne
18. Distance from proposed location* to nearest well, drilling, completed, applied for, on this lease, ft. Approx. 1153'	17. Spacing Unit dedicated to this well 20 Acres	13. State UT
19. Proposed Depth 5980'	20. BLM/BIA Bond No. on file WYB000493	
21. Elevations (Show whether DF, KDB, RT, GL, etc.) 5426' GL	22. Approximate date work will start* 4th Quarter 2008	23. Estimated duration Approximately seven (7) days from spud to rig release.

24. Attachments

The following, completed in accordance with the requirements of Onshore Oil and Gas Order No.1, shall be attached to this form:

- |   |  |
|---|--|
| 1. Well plat certified by a registered surveyor.  | 4. Bond to cover the operations unless covered by an existing bond on file (see Item 20 above).    |
| 2. A Drilling Plan.   | 5. Operator certification.   |
| 3. A Surface Use Plan (if the location is on National Forest System Lands, the SUPO shall be filed with the appropriate Forest Service Office). | 6. Such other site specific information and/or plans as may be required by the authorized officer. |

25. Signature 	Name (Printed/Typed) Mandie Crozier	Date 6/20/08
Title Regulatory Specialist		
Approved by Signature 	Name (Printed/Typed) BRADLEY G. HILL	Date 07-07-08
Title Office ENVIRONMENTAL MANAGER		

Application approval does not warrant or certify the the applicant holds legal or equitable title to those rights in the subject lease which would entitle the applicant to conduct operations thereon.

Conditions of approval, if any, are attached.

Title 18 U.S.C. Section 1001 and Title 43 U.S.C. Section 1212, make it a crime for any person knowingly and willfully to make to any department or agency of the United States any false, fictitious or fraudulent statements or representations as to any matter within its jurisdiction.

\*(Instructions on reverse)

Sur f  
580140X  
4432468Y  
40.040532  
-110.060630

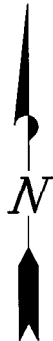
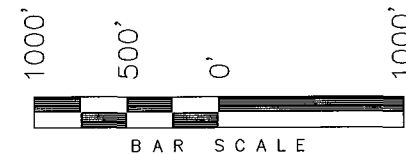
Federal Approval of this  
Action is Necessary  
BHL  
579905X  
4432582Y  
40.041582  
- 110.063363

RECEIVED  
JUN 25 2008  
DIV. OF OIL, GAS & MINING

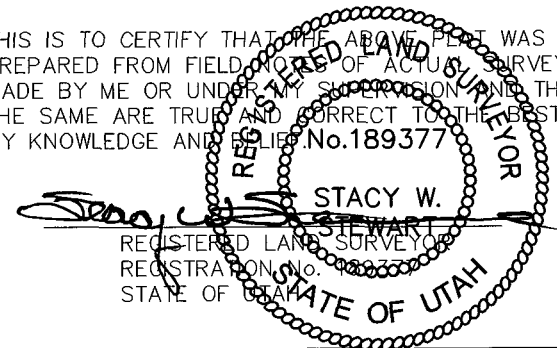
**T9S, R16E, S.L.B.&M.**

**NEWFIELD PRODUCTION COMPANY**

WELL LOCATION, JONAH UNIT S-12-9-16,  
LOCATED AS SHOWN IN THE SE 1/4 SE  
1/4 OF SECTION 12, T9S, R16E, S.L.B.&M.  
DUCHESNE COUNTY, UTAH.



THIS IS TO CERTIFY THAT THE ABOVE PLAT WAS  
PREPARED FROM FIELD NOTES OF ACTUAL SURVEYS  
MADE BY ME OR UNDER MY SUPERVISION AND THAT  
THE SAME ARE TRUE AND CORRECT TO THE BEST OF  
MY KNOWLEDGE AND BELIEF No.189377



**TRI STATE LAND SURVEYING & CONSULTING**

180 NORTH VERNAL AVE. - VERNAL, UTAH 84078  
(435) 781-2501

DATE SURVEYED: 12-01-07	SURVEYED BY: T.H.
DATE DRAWN: 12-14-07	DRAWN BY: F.T.M.
REVISED: 02-19-08 L.C.S.	SCALE: 1" = 1000'

N89°57'W (G.L.O.)

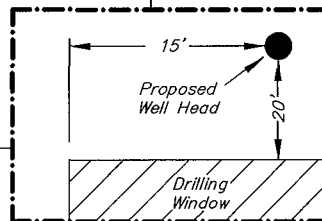
**WELL LOCATION:  
JONAH UNIT S-12-9-16**

ELEV. EXIST. GRADED GROUND = 5426'

**12**

1910  
Brass Cap

N0°01'W (G.L.O.)



**Detail**  
No Scale

Bottom  
of Hole

N63°12'27"W  
854.73'

See  
Detail At  
Left

1605'  
Top of  
Hole

842'

200'

880'

DRILLING  
WINDOW

NORTH G.L.O. (Basis of Bearings)  
2640.18' (Measured)

1910  
Brass Cap

1910  
Brass Cap

N89°58'50"W - 2645.78' (Meas.)

N89°59'04"W - 2643.34' (Meas.)

N89°56'W - 80.00 (G.L.O.)

1910  
Brass Cap

◆ = SECTION CORNERS LOCATED

BASIS OF ELEV;  
U.S.G.S. 7-1/2 min QUAD (MYTON SE)

**JONAH UNIT S-12-9-16**  
**(Surface Location) NAD 83**  
LATITUDE = 40° 02' 25.83"  
LONGITUDE = 110° 03' 40.87"

**NEWFIELD PRODUCTION COMPANY  
JONAH FEDERAL S-12-9-16  
AT SURFACE: SE/SE SECTION 12, T9S, R16E  
DUCHESNE COUNTY, UTAH**

**ONSHORE ORDER NO. 1**

**DRILLING PROGRAM**

**1. GEOLOGIC SURFACE FORMATION:**

Uinta formation of Upper Eocene Age

**2. ESTIMATED TOPS OF IMPORTANT GEOLOGIC MARKERS:**

Uinta	0' – 1378'
Green River	1378'
Wasatch	5980'

**3. ESTIMATED DEPTHS OF ANTICIPATED WATER, OIL, GAS OR MINERALS:**

Green River Formation 1378' – 5980' - Oil

**4. PROPOSED CASING PROGRAM**

Please refer to the Monument Butte Field Standard Operation Procedure (SOP).

**5. MINIMUM SPECIFICATIONS FOR PRESSURE CONTROL:**

Please refer to the Monument Butte Field SOP. See Exhibit "C".

**6. TYPE AND CHARACTERISTICS OF THE PROPOSED CIRCULATION MUDS:**

Please refer to the Monument Butte Field SOP.

**7. AUXILIARY SAFETY EQUIPMENT TO BE USED:**

Please refer to the Monument Butte Field SOP.

**8. TESTING, LOGGING AND CORING PROGRAMS:**

Please refer to the Monument Butte Field SOP.

**9. ANTICIPATED ABNORMAL PRESSURE OR TEMPERATURE:**

The anticipated maximum bottom hole pressure is 1800 psi. It is not anticipated that abnormal temperatures will be encountered.

**10. ANTICIPATED STARTING DATE AND DURATION OF THE OPERATIONS:**

Please refer to the Monument Butte Field SOP.

**NEWFIELD PRODUCTION COMPANY  
JONAH FEDERAL S-12-9-16  
AT SURFACE: SE/SE SECTION 12, T9S, R16E  
DUCHESNE COUNTY, UTAH**

**ONSHORE ORDER NO. 1**

**MULTI-POINT SURFACE USE & OPERATIONS PLAN**

**1. EXISTING ROADS**

See attached Topographic Map "A"

To reach Newfield Production Company well location site Jonah Federal S-12-9-16 located in the SE 1/4 SE 1/4 Section 12, T9S, R16E, Duchesne County, Utah:

Proceed southwesterly out of Myton, Utah along Highway 40 - 1.4 miles  $\pm$  to the junction of this highway and UT State Hwy 53; proceed southeasterly - 11.6 miles  $\pm$  to it's junction with an existing dirt road to the southwest; proceed southwesterly - 3.3 miles  $\pm$  to it's junction with an existing road to the north; proceed northerly - 1.1 miles  $\pm$  to it's junction with the beginning of the access road to the existing Jonah Federal 16-12-9-16 well location.

**2. PLANNED ACCESS ROAD**

There is no proposed access road for this location. The proposed well will be drilled directionally off of the existing Jonah Federal 16-12-9-16 well pad. See attached Topographic Map "B".

**3. LOCATION OF EXISTING WELLS**

Refer to Exhibit "B".

**4. LOCATION OF EXISTING AND/OR PROPOSED FACILITIES**

The proposed well will be drilled directionally off of the Jonah Federal 16-12-9-16 well pad. There will be a pumping unit and a short flow line added to the tank battery for the proposed Jonah Federal S-12-9-16. All permanent surface equipment will be painted Carlsbad Canyon.

Please refer to the Monument Butte Field Standard Operating Procedure (SOP).

**5. LOCATION AND TYPE OF WATER SUPPLY**

Newfield Production will transport water by truck for drilling purposes from the following water sources:

Johnson Water District  
Water Right: 43-10136

Neil Moon Pond  
Water Right: 43-11787

Maurice Harvey Pond  
Water Right: 47-1358

Newfield Collector Well  
Water Right: 41-3530 (A30414DV, contracted with the Duchesne County Conservancy District).

Please refer to the Monument Butte Field SOP. See Exhibit "A".

6. **SOURCE OF CONSTRUCTION MATERIALS**

The proposed Jonah Federal S-12-9-16 will be drilled off of the existing Jonah Federal 16-12-9-16 well pad. No additional surface disturbance will be required for this location.

7. **METHODS FOR HANDLING WASTE DISPOSAL**

Please refer to the Monument Butte Field SOP.

8. **ANCILLARY FACILITIES**

Please refer to the Monument Butte Field SOP.

9. **WELL SITE LAYOUT**

See attached Location Layout Diagram.

10. **PLANS FOR RESTORATION OF SURFACE**

Please refer to the Monument Butte Field SOP.

11. **SURFACE OWNERSHIP** - Bureau Of Land Management (Proposed location and access roads leading to).

12. **OTHER ADDITIONAL INFORMATION**

**Water Disposal**

Immediately upon first production, all produced water will be confined to a steel storage tank. If the production water meets quality guidelines, it is transported to the Ashley, Monument Butte, Jonah, and Beluga water injection facilities by company or contract trucks. Subsequently, the produced water is injected into approved Class II wells to enhance Newfield's secondary recovery project.

Water not meeting quality criteria, is disposed at Newfield's Pariette #4 disposal well (Sec. 7, T9S R19E), State of Utah approved surface disposal facilities, or Federally approved surface disposal facilities.

**Threatened, Endangered, And Other Sensitive Species**

Nonr for the proposed Jonah Federal S-12-9-16

**Reserve Pit Liner**

A 16 mil liner with felt is required. Please refer to the Monument Butte Field SOP.

**Location and Reserve Pit Reclamation**

Please refer to the Monument Butte Field SOP.

The following seed mixture will be used on the topsoil stockpile, to the recontoured surface of the reserve pit, and for final reclamation: (All poundages are in pure live seed)

Squirrell Tail	<i>Elymus Elymoides</i>	6 lbs/acre
Siberian Wheatgrass	<i>Agropyron Fragile</i>	2 lbs/acre
Gardner Saltbush	<i>Atriplex Gardneri</i>	1 lbs/acre
Shadscale	<i>Atriplex Confertifolia</i>	1 lbs/acre
Fourwing Saltbush	<i>Atriplex Canescens</i>	1 lbs/acre
Scarlet Globemallow	<i>Sphaeralcea Conccinea</i>	0.20 lbs/acre

**Details of the On-Site Inspection**

The proposed Jonah Federal S-12-9-16 was on-sited on 6/11/08. The following were present; Dave Allred (Newfield Production), Kevan Stevens (Newfield Production ), Michael Cutler (Bureau of Land Management), Brandon McDonald (Bureau of Land Management ), and James Herford (Bureau of Land Management). Weather conditions were clear and ground cover was 100% open.

**LESSEE'S OR OPERATORS REPRESENTATIVE AND CERTIFICATION****Representative**

Name: Dave Allred  
Address: Route #3 Box 3630  
Myton, UT 84052  
Telephone: (435) 646-3721

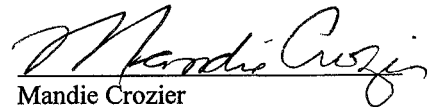
**Certification**

Please be advised that NEWFIELD PRODUCTION COMPANY is considered to be the operator of well #S-12-9-16 SE/SE Section 12, Township 9S, Range 16E: Lease UTU-035521 Duchesne County, Utah: and is responsible under the terms and conditions of the lease for the operations conducted upon the leased lands. Bond coverage is provided by, Federal Bond #WYB000493.

I hereby certify that the proposed drill site and access route have been inspected, and I am familiar with the conditions which currently exist; that the statements made in this plan are true and correct to the best of my knowledge; and that the work associated with the operations proposed here will be performed by Newfield Production Company and its contractors and subcontractors in conformity with this plan and the terms and conditions under which it is approved. This statement is subject to the provisions of 18 U.S.C. 1001 for the filing of a false statement.

6/20/08

Date



Mandie Crozier  
Regulatory Specialist  
Newfield Production Company



**Scientific Drilling**  
Rocky Mountain Operations

Project: Duchesne County, UT NAD83 UTC  
Site: Jonah Unit  
Well: Jonah Unit S-12-9-16  
Wellbore: OH  
Design: Plan #1

**Newfield Exploration Co.**

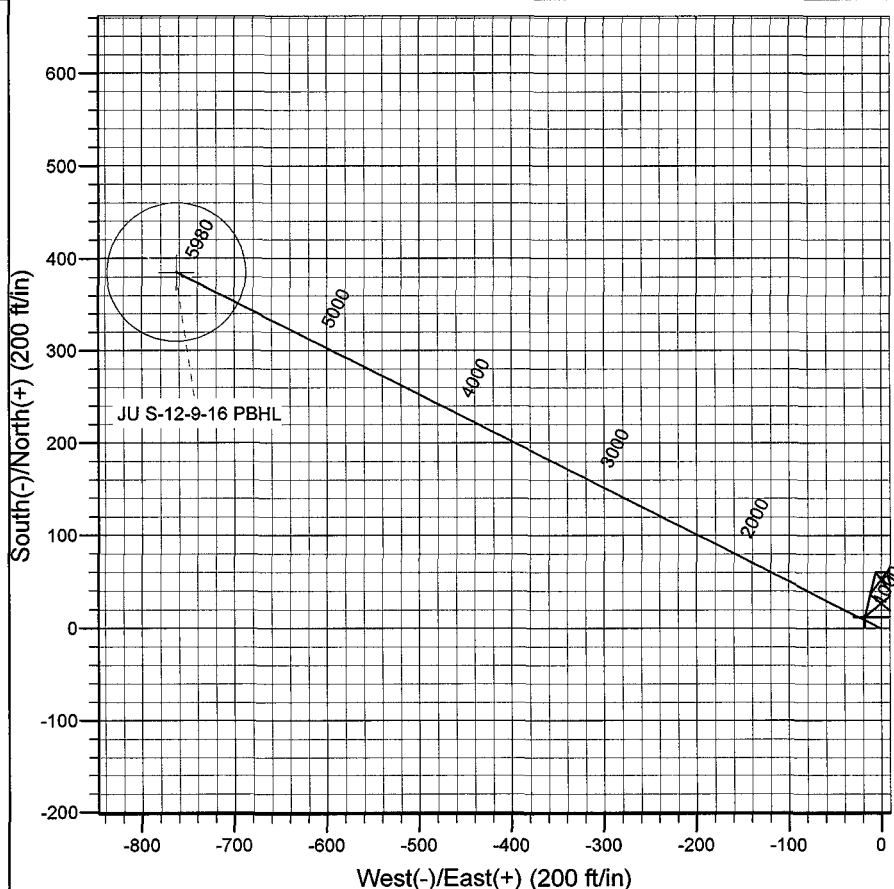
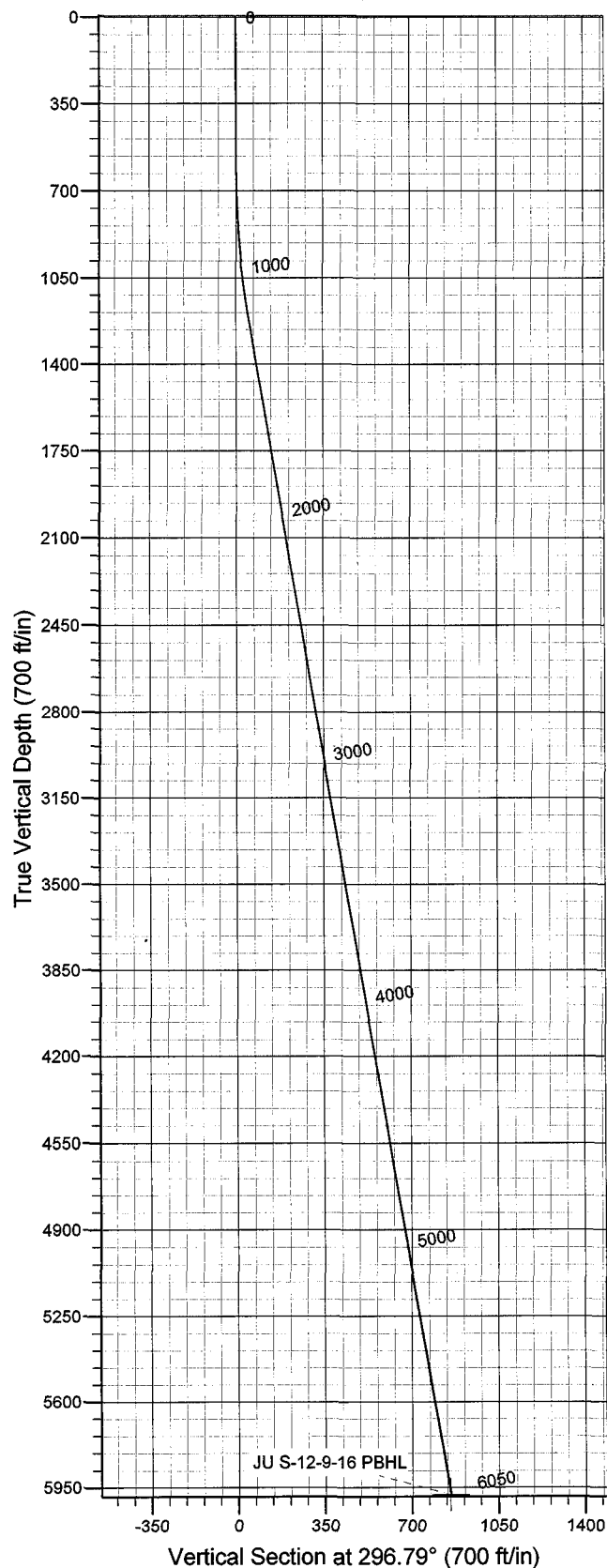


Azimuths to True North  
Magnetic North: 11.70°

Magnetic Field  
Strength: 52603.9snT  
Dip Angle: 65.88°  
Date: 2008-04-23  
Model: IGRF2005-10

WELL DETAILS: Jonah Unit S-12-9-16

GL 5426' & RKB 12' @ 5438.00ft 5426.00  
+N/-S +E/-W Northing Easting Latitude Longitude  
0.00 0.00 7186732.45 2043182.68 40° 2' 25.830 N 110° 3' 40.870 W



Plan: Plan #1 (Jonah Unit S-12-9-16/OH)

Created By: Julie Cruse Date: 2008-04-23

PROJECT DETAILS: Duchesne County, UT NAD83 UTC

Geodetic System: US State Plane 1983  
Datum: North American Datum 1983  
Ellipsoid: GRS 1980  
Zone: Utah Central Zone  
Location:  
System Datum: Mean Sea Level  
Local North: True

#### SECTION DETAILS

MD	Inc	Azi	TVD	+N/-S	+E/-W	DLeg	TFace	VSec	Target
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
600.00	0.00	0.00	600.00	0.00	0.00	0.00	0.00	0.00	
1239.23	9.59	296.79	1236.25	24.05	-47.64	1.50	296.79	53.36	
6050.19	9.59	296.79	5980.00	385.25	-762.99	0.00	0.00	854.73	JU S-12-9-16 PBHL

# **Newfield Exploration Co.**

**Duchesne County, UT NAD83 UTC**

**Jonah Unit**

**Jonah Unit S-12-9-16**

**OH**

**Plan: Plan #1**

## **Standard Planning Report**

**23 April, 2008**



# Scientific Drilling

## Planning Report

**Database:** EDM 2003.16 Multi-User Db  
**Company:** Newfield Exploration Co.  
**Project:** Duchesne County, UT NAD83 UTC  
**Site:** Jonah Unit  
**Well:** Jonah Unit S-12-9-16  
**Wellbore:** OH  
**Design:** Plan #1

**Local Co-ordinate Reference:** Well Jonah Unit S-12-9-16  
**TVD Reference:** GL 5426' & RKB 12' @ 5438.00ft  
**MD Reference:** GL 5426' & RKB 12' @ 5438.00ft  
**North Reference:** True  
**Survey Calculation Method:** Minimum Curvature

<b>Project</b>	Duchesne County, UT NAD83 UTC		
<b>Map System:</b>	US State Plane 1983	<b>System Datum:</b>	Mean Sea Level
<b>Geo Datum:</b>	North American Datum 1983		
<b>Map Zone:</b>	Utah Central Zone		

<b>Site</b>	Jonah Unit,		
<b>Site Position:</b>		<b>Northing:</b>	7,195,384.71 ft
<b>From:</b>	Lat/Long	<b>Easting:</b>	2,044,880.81 ft
<b>Position Uncertainty:</b>	0.00 ft	<b>Slot Radius:</b>	in
		<b>Latitude:</b>	40° 3' 51.060 N
		<b>Longitude:</b>	110° 3' 17.240 W
		<b>Grid Convergence:</b>	0.93 °

<b>Well</b>	Jonah Unit S-12-9-16, 880' FSL 842' FEL Sec 12 T9S R16E		
<b>Well Position</b>	<b>+N/-S</b>	0.00 ft	<b>Northing:</b> 7,186,732.45 ft
	<b>+E/-W</b>	0.00 ft	<b>Easting:</b> 2,043,182.68 ft
<b>Position Uncertainty</b>	0.00 ft	<b>Wellhead Elevation:</b>	ft
		<b>Latitude:</b>	40° 2' 25.830 N
		<b>Longitude:</b>	110° 3' 40.870 W
		<b>Ground Level:</b>	5,426.00 ft

<b>Wellbore</b>	OH					
<b>Magnetics</b>	<b>Model Name</b>	<b>Sample Date</b>	<b>Declination (°)</b>	<b>Dip Angle (°)</b>	<b>Field Strength (nT)</b>	
	IGRF2005-10	2008-04-23	11.70	65.88	52,604	

<b>Design</b>	Plan #1				
<b>Audit Notes:</b>					
<b>Version:</b>	<b>Phase:</b>	PLAN		<b>Tie On Depth:</b>	0.00
<b>Vertical Section:</b>	<b>Depth From (TVD) (ft)</b>	<b>+N/-S (ft)</b>	<b>+E/-W (ft)</b>	<b>Direction (°)</b>	
	0.00	0.00	0.00	296.79	

Plan Sections										
Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Dogleg Rate (°/100ft)	Build Rate (°/100ft)	Turn Rate (°/100ft)	TFO (°)	Target
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
600.00	0.00	0.00	600.00	0.00	0.00	0.00	0.00	0.00	0.00	
1,239.23	9.59	296.79	1,236.25	24.05	-47.64	1.50	1.50	0.00	296.79	
6,050.19	9.59	296.79	5,980.00	385.25	-762.99	0.00	0.00	0.00	0.00	JU S-12-9-16 PBHL

# Scientific Drilling

## Planning Report

**Database:** EDM 2003.16 Multi-User Db  
**Company:** Newfield Exploration Co.  
**Project:** Duchesne County, UT NAD83 UTC  
**Site:** Jonah Unit  
**Well:** Jonah Unit S-12-9-16  
**Wellbore:** OH  
**Design:** Plan #1

**Local Co-ordinate Reference:** Well Jonah Unit S-12-9-16  
**TVD Reference:** GL 5426' & RKB 12' @ 5438.00ft  
**MD Reference:** GL 5426' & RKB 12' @ 5438.00ft  
**North Reference:** True  
**Survey Calculation Method:** Minimum Curvature

### Planned Survey

Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Vertical Section (ft)	Dogleg Rate (°/100ft)	Build Rate (°/100ft)	Turn Rate (°/100ft)
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
100.00	0.00	0.00	100.00	0.00	0.00	0.00	0.00	0.00	0.00
200.00	0.00	0.00	200.00	0.00	0.00	0.00	0.00	0.00	0.00
300.00	0.00	0.00	300.00	0.00	0.00	0.00	0.00	0.00	0.00
400.00	0.00	0.00	400.00	0.00	0.00	0.00	0.00	0.00	0.00
500.00	0.00	0.00	500.00	0.00	0.00	0.00	0.00	0.00	0.00
600.00	0.00	0.00	600.00	0.00	0.00	0.00	0.00	0.00	0.00
700.00	1.50	296.79	699.99	0.59	-1.17	1.31	1.50	1.50	0.00
800.00	3.00	296.79	799.91	2.36	-4.67	5.23	1.50	1.50	0.00
900.00	4.50	296.79	899.69	5.31	-10.51	11.77	1.50	1.50	0.00
1,000.00	6.00	296.79	999.27	9.43	-18.68	20.92	1.50	1.50	0.00
1,100.00	7.50	296.79	1,098.57	14.73	-29.17	32.68	1.50	1.50	0.00
1,200.00	9.00	296.79	1,197.54	21.20	-41.98	47.03	1.50	1.50	0.00
1,239.23	9.59	296.79	1,236.25	24.05	-47.64	53.36	1.50	1.50	0.00
1,300.00	9.59	296.79	1,296.17	28.61	-56.67	63.49	0.00	0.00	0.00
1,400.00	9.59	296.79	1,394.77	36.12	-71.54	80.14	0.00	0.00	0.00
1,500.00	9.59	296.79	1,493.38	43.63	-86.41	96.80	0.00	0.00	0.00
1,600.00	9.59	296.79	1,591.98	51.14	-101.28	113.46	0.00	0.00	0.00
1,700.00	9.59	296.79	1,690.58	58.65	-116.15	130.11	0.00	0.00	0.00
1,800.00	9.59	296.79	1,789.19	66.15	-131.02	146.77	0.00	0.00	0.00
1,900.00	9.59	296.79	1,887.79	73.66	-145.89	163.43	0.00	0.00	0.00
2,000.00	9.59	296.79	1,986.39	81.17	-160.76	180.09	0.00	0.00	0.00
2,100.00	9.59	296.79	2,085.00	88.68	-175.62	196.74	0.00	0.00	0.00
2,200.00	9.59	296.79	2,183.60	96.18	-190.49	213.40	0.00	0.00	0.00
2,300.00	9.59	296.79	2,282.20	103.69	-205.36	230.06	0.00	0.00	0.00
2,400.00	9.59	296.79	2,380.80	111.20	-220.23	246.71	0.00	0.00	0.00
2,500.00	9.59	296.79	2,479.41	118.71	-235.10	263.37	0.00	0.00	0.00
2,600.00	9.59	296.79	2,578.01	126.21	-249.97	280.03	0.00	0.00	0.00
2,700.00	9.59	296.79	2,676.61	133.72	-264.84	296.68	0.00	0.00	0.00
2,800.00	9.59	296.79	2,775.22	141.23	-279.71	313.34	0.00	0.00	0.00
2,900.00	9.59	296.79	2,873.82	148.74	-294.58	330.00	0.00	0.00	0.00
3,000.00	9.59	296.79	2,972.42	156.25	-309.45	346.66	0.00	0.00	0.00
3,100.00	9.59	296.79	3,071.02	163.75	-324.32	363.31	0.00	0.00	0.00
3,200.00	9.59	296.79	3,169.63	171.26	-339.19	379.97	0.00	0.00	0.00
3,300.00	9.59	296.79	3,268.23	178.77	-354.06	396.63	0.00	0.00	0.00
3,400.00	9.59	296.79	3,366.83	186.28	-368.92	413.28	0.00	0.00	0.00
3,500.00	9.59	296.79	3,465.44	193.78	-383.79	429.94	0.00	0.00	0.00
3,600.00	9.59	296.79	3,564.04	201.29	-398.66	446.60	0.00	0.00	0.00
3,700.00	9.59	296.79	3,662.64	208.80	-413.53	463.26	0.00	0.00	0.00
3,800.00	9.59	296.79	3,761.25	216.31	-428.40	479.91	0.00	0.00	0.00
3,900.00	9.59	296.79	3,859.85	223.82	-443.27	496.57	0.00	0.00	0.00
4,000.00	9.59	296.79	3,958.45	231.32	-458.14	513.23	0.00	0.00	0.00
4,100.00	9.59	296.79	4,057.05	238.83	-473.01	529.88	0.00	0.00	0.00
4,200.00	9.59	296.79	4,155.66	246.34	-487.88	546.54	0.00	0.00	0.00
4,300.00	9.59	296.79	4,254.26	253.85	-502.75	563.20	0.00	0.00	0.00
4,400.00	9.59	296.79	4,352.86	261.35	-517.62	579.86	0.00	0.00	0.00
4,500.00	9.59	296.79	4,451.47	268.86	-532.49	596.51	0.00	0.00	0.00
4,600.00	9.59	296.79	4,550.07	276.37	-547.36	613.17	0.00	0.00	0.00
4,700.00	9.59	296.79	4,648.67	283.88	-562.22	629.83	0.00	0.00	0.00
4,800.00	9.59	296.79	4,747.27	291.38	-577.09	646.48	0.00	0.00	0.00
4,900.00	9.59	296.79	4,845.88	298.89	-591.96	663.14	0.00	0.00	0.00
5,000.00	9.59	296.79	4,944.48	306.40	-606.83	679.80	0.00	0.00	0.00
5,100.00	9.59	296.79	5,043.08	313.91	-621.70	696.46	0.00	0.00	0.00
5,200.00	9.59	296.79	5,141.69	321.42	-636.57	713.11	0.00	0.00	0.00

# Scientific Drilling

## Planning Report

**Database:** EDM 2003.16 Multi-User Db  
**Company:** Newfield Exploration Co.  
**Project:** Duchesne County, UT NAD83 UTC  
**Site:** Jonah Unit  
**Well:** Jonah Unit S-12-9-16  
**Wellbore:** OH  
**Design:** Plan #1

**Local Co-ordinate Reference:** Well Jonah Unit S-12-9-16  
**TVD Reference:** GL 5426' & RKB 12' @ 5438.00ft  
**MD Reference:** GL 5426' & RKB 12' @ 5438.00ft  
**North Reference:** True  
**Survey Calculation Method:** Minimum Curvature

### Planned Survey

Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Vertical Section (ft)	Dogleg Rate (°/100ft)	Build Rate (°/100ft)	Turn Rate (°/100ft)
5,300.00	9.59	296.79	5,240.29	328.92	-651.44	729.77	0.00	0.00	0.00
5,400.00	9.59	296.79	5,338.89	336.43	-666.31	746.43	0.00	0.00	0.00
5,500.00	9.59	296.79	5,437.50	343.94	-681.18	763.08	0.00	0.00	0.00
5,600.00	9.59	296.79	5,536.10	351.45	-696.05	779.74	0.00	0.00	0.00
5,700.00	9.59	296.79	5,634.70	358.95	-710.92	796.40	0.00	0.00	0.00
5,800.00	9.59	296.79	5,733.30	366.46	-725.79	813.06	0.00	0.00	0.00
5,900.00	9.59	296.79	5,831.91	373.97	-740.65	829.71	0.00	0.00	0.00
6,000.00	9.59	296.79	5,930.51	381.48	-755.52	846.37	0.00	0.00	0.00
6,050.19	9.59	296.79	5,980.00	385.25	-762.99	854.73	0.00	0.00	0.00

### Targets

Target Name - hit/miss target - Shape	Dip Angle (°)	Dip Dir. (°)	TVD (ft)	+N/-S (ft)	+E/-W (ft)	Northing (ft)	Easting (ft)	Latitude	Longitude
JU S-12-9-16 PBHL - plan hits target center - Circle (radius 75.00)	0.00	0.00	5,980.00	385.25	-762.99	7,187,105.38	2,042,413.60	40° 2' 29.637 N	110° 3' 50.681 W

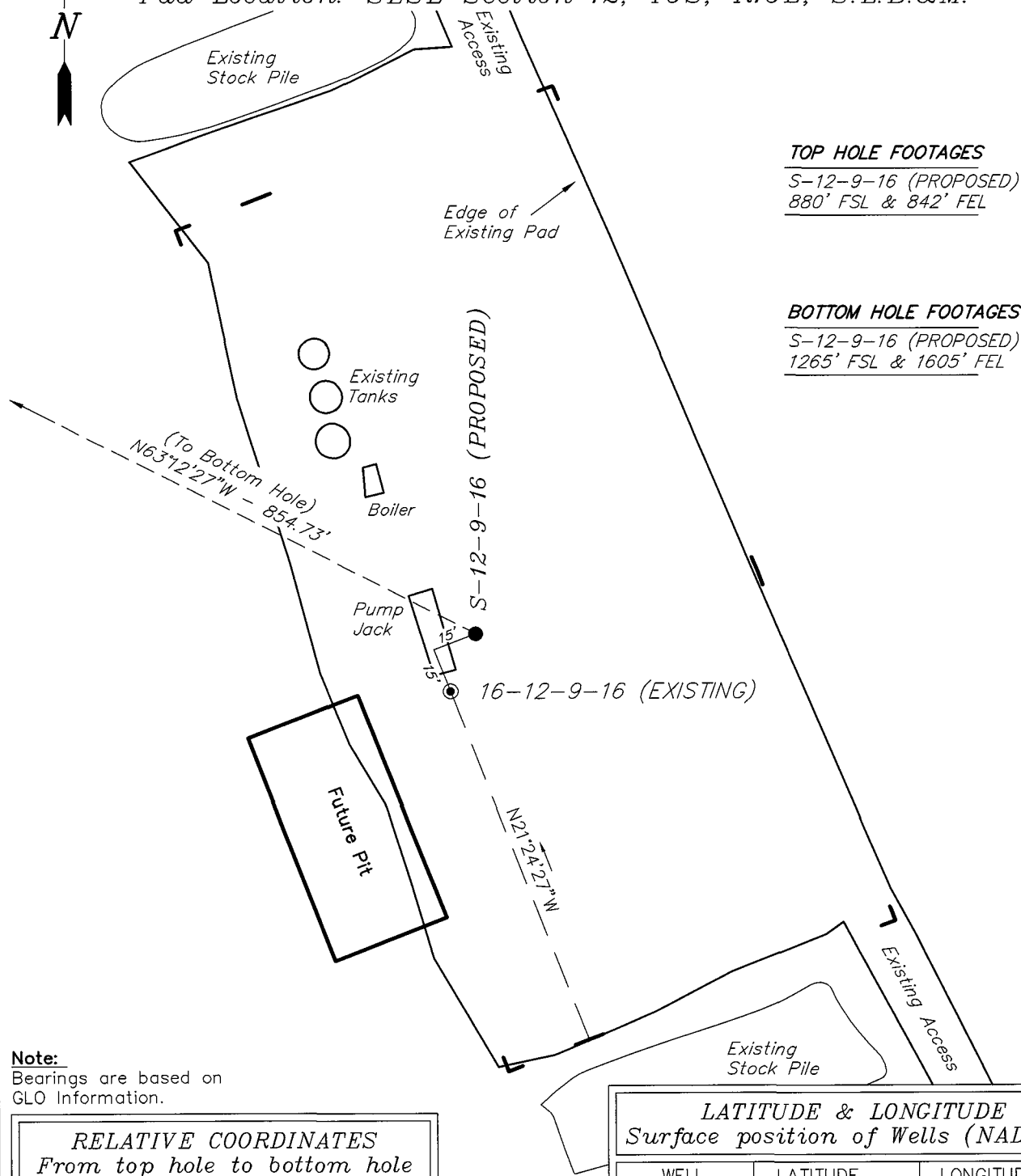
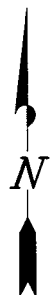
# NEWFIELD PRODUCTION COMPANY

## WELL PAD INTERFERENCE PLAT

JONAH UNIT S-12-9-16 (Proposed Well)

JONAH UNIT 16-12-9-16 (Existing Well)

Pad Location: SESE Section 12, T9S, R16E, S.L.B.&M.



### TOP HOLE FOOTAGES

S-12-9-16 (PROPOSED)  
880' FSL & 842' FEL

### BOTTOM HOLE FOOTAGES

S-12-9-16 (PROPOSED)  
1265' FSL & 1605' FEL

#### Note:

Bearings are based on  
GLO Information.

#### RELATIVE COORDINATES From top hole to bottom hole

WELL	NORTH	EAST
S-12-9-16	385'	-763'

#### LATITUDE & LONGITUDE Surface position of Wells (NAD 83)

WELL	LATITUDE	LONGITUDE
S-12-9-16	40° 02' 25.83"	110° 03' 40.87"
16-12-9-16	40° 02' 25.64"	110° 03' 40.97"

SURVEYED BY: T.H. DATE SURVEYED: 12-01-07  
DRAWN BY: F.T.M. DATE DRAWN: 12-14-07  
SCALE: 1" = 50' REVISED: L.C.S. 02-19-08

**Tri State**  
Land Surveying, Inc.  
180 NORTH VERNAL AVE. VERNAL, UTAH 84078

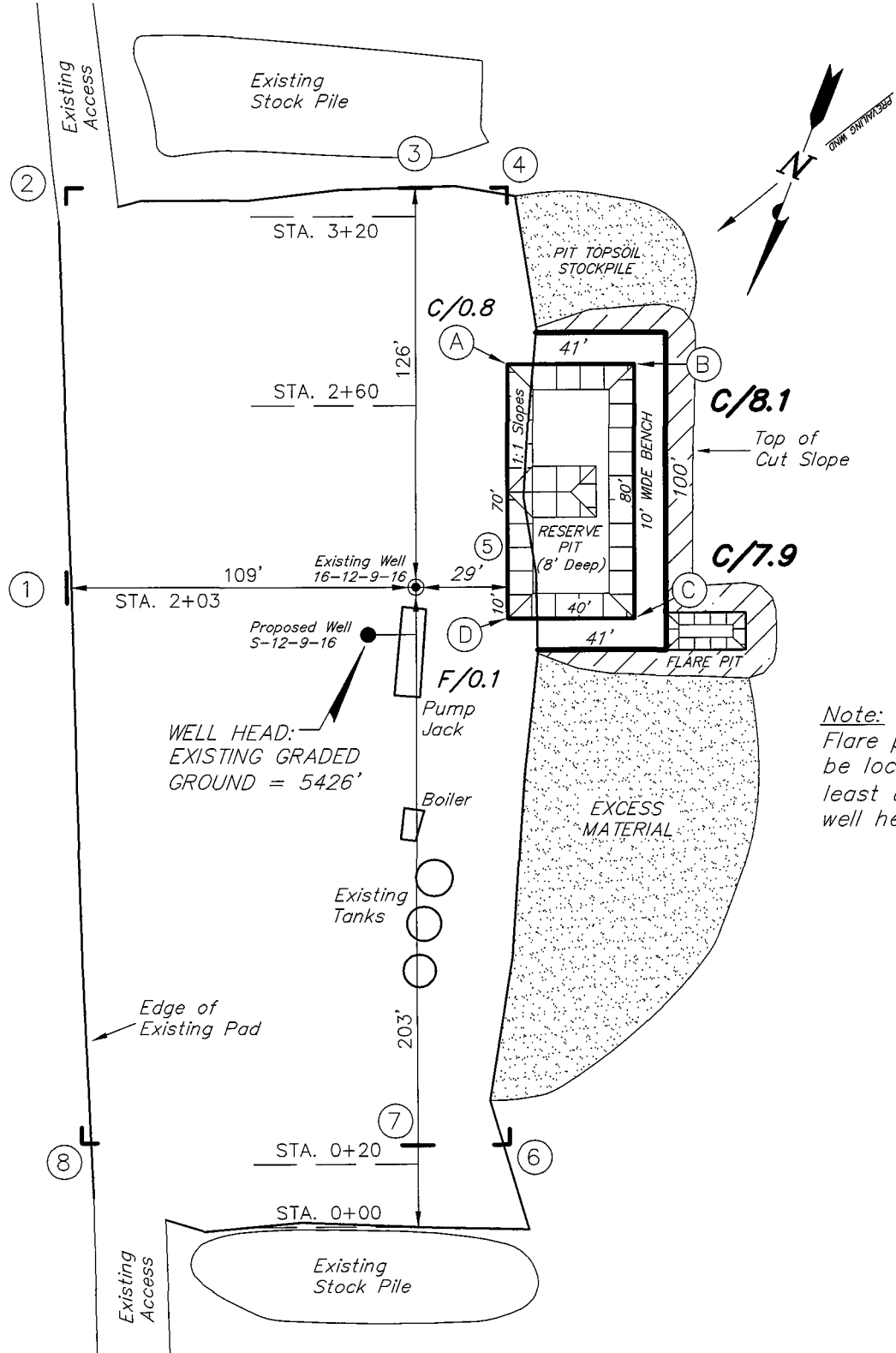
(435) 781-2501

# NEWFIELD PRODUCTION COMPANY

JONAH UNIT S-12-9-16 (Proposed Well)

JONAH UNIT 16-12-9-16 (Existing Well)

Pad Location: SESE Section 12, T9S, R16E, S.L.B.&M.



Note:  
Flare pit is to  
be located at  
least 80' from  
well head.

SURVEYED BY: T.H.	DATE SURVEYED: 12-01-07
DRAWN BY: F.T.M.	DATE DRAWN: 12-14-07
SCALE: 1" = 50'	REVISED:

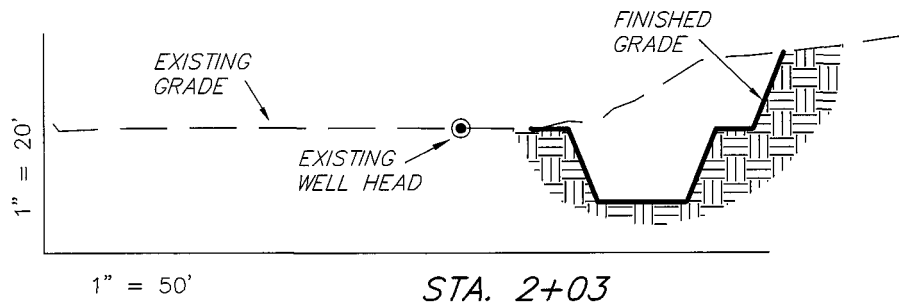
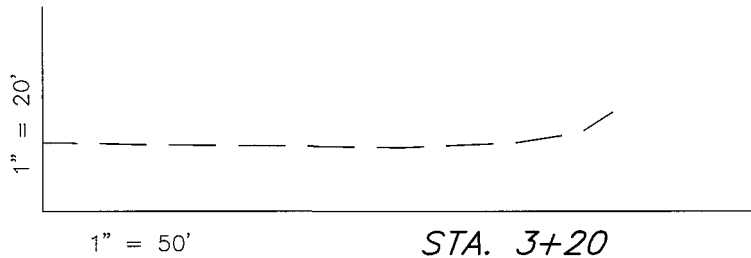
**Tri State**  
Land Surveying, Inc.  
180 NORTH VERNAL AVE. VERNAL, UTAH 84078  
(435) 781-2501

# NEWFIELD PRODUCTION COMPANY

## CROSS SECTIONS

JONAH UNIT S-12-9-16 (Proposed Well)

JONAH UNIT 16-12-9-16 (Existing Well)



NOTE:  
UNLESS OTHERWISE NOTED  
CUT SLOPES ARE AT 1:1  
FILL SLOPES ARE AT 1.5:1

ESTIMATED EARTHWORK QUANTITIES (No Shrink or swell adjustments have been used) (Expressed in Cubic Yards)				
ITEM	CUT	FILL	6" TOPSOIL	EXCESS
PAD	1,320	0	Topsoil is not included in Pad Cut	1,320
PIT	640	0		640
TOTALS	1,960	0	150	1,960

SURVEYED BY: T.H.	DATE SURVEYED: 12-01-07
DRAWN BY: F.T.M.	DATE DRAWN: 12-14-07
SCALE: 1" = 50'	REVISED:

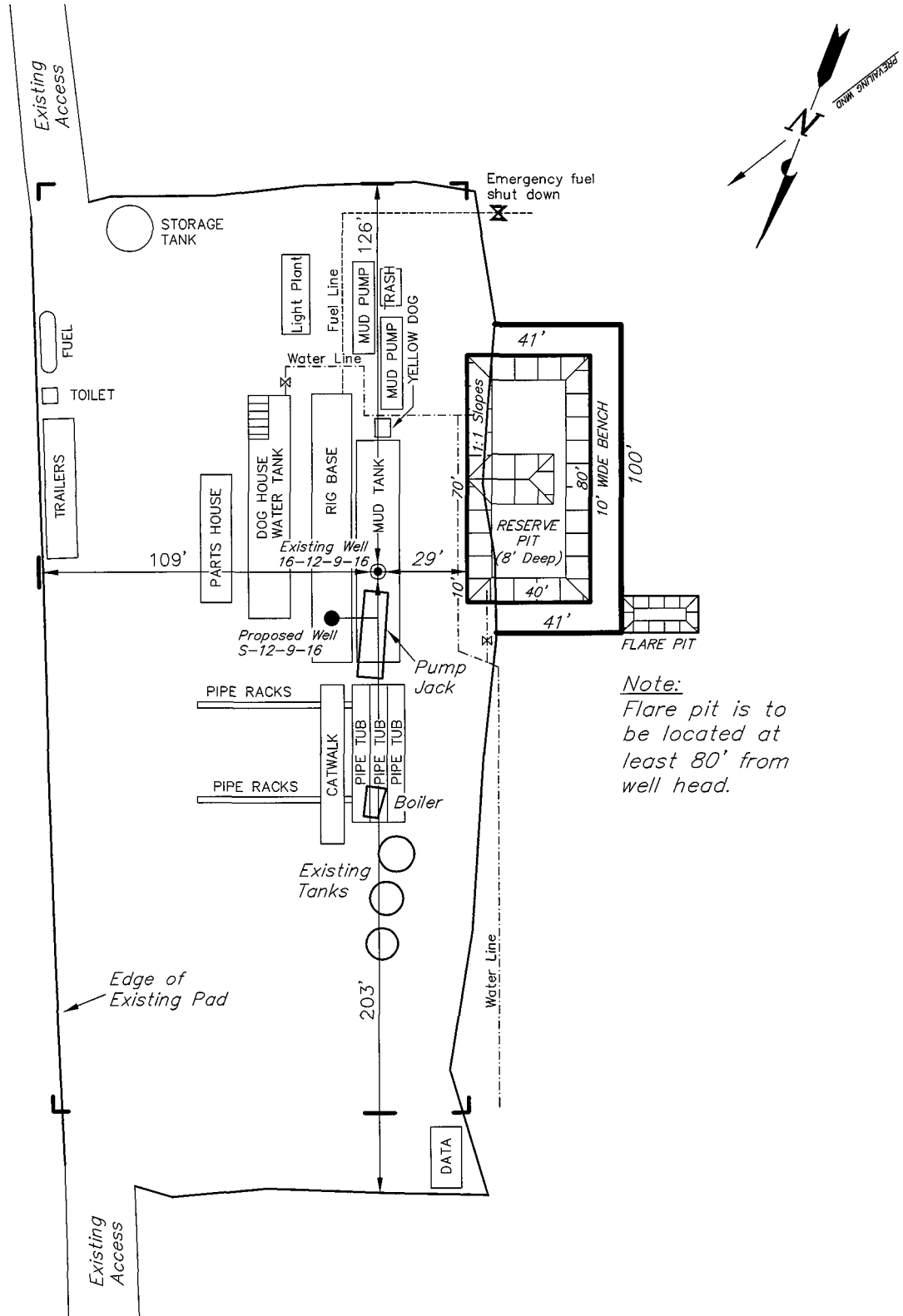
**Tri State**  
Land Surveying, Inc.  
180 NORTH VERNAL AVE. VERNAL, UTAH 84078  
(435) 781-2501

# NEWFIELD PRODUCTION COMPANY

## TYPICAL RIG LAYOUT

JONAH UNIT S-12-9-16 (Proposed Well)

JONAH UNIT 16-12-9-16 (Existing Well)



Note:  
Flare pit is to  
be located at  
least 80' from  
well head.

SURVEYED BY: T.H.	DATE SURVEYED: 12-01-07
DRAWN BY: F.T.M.	DATE DRAWN: 12-14-07
SCALE: 1" = 50'	REVISED:

**Tri State**  
Land Surveying, Inc.  
(435) 781-2501  
180 NORTH VERNAL AVE. VERNAL, UTAH 84078

# Newfield Production Company Proposed Site Facility Diagram

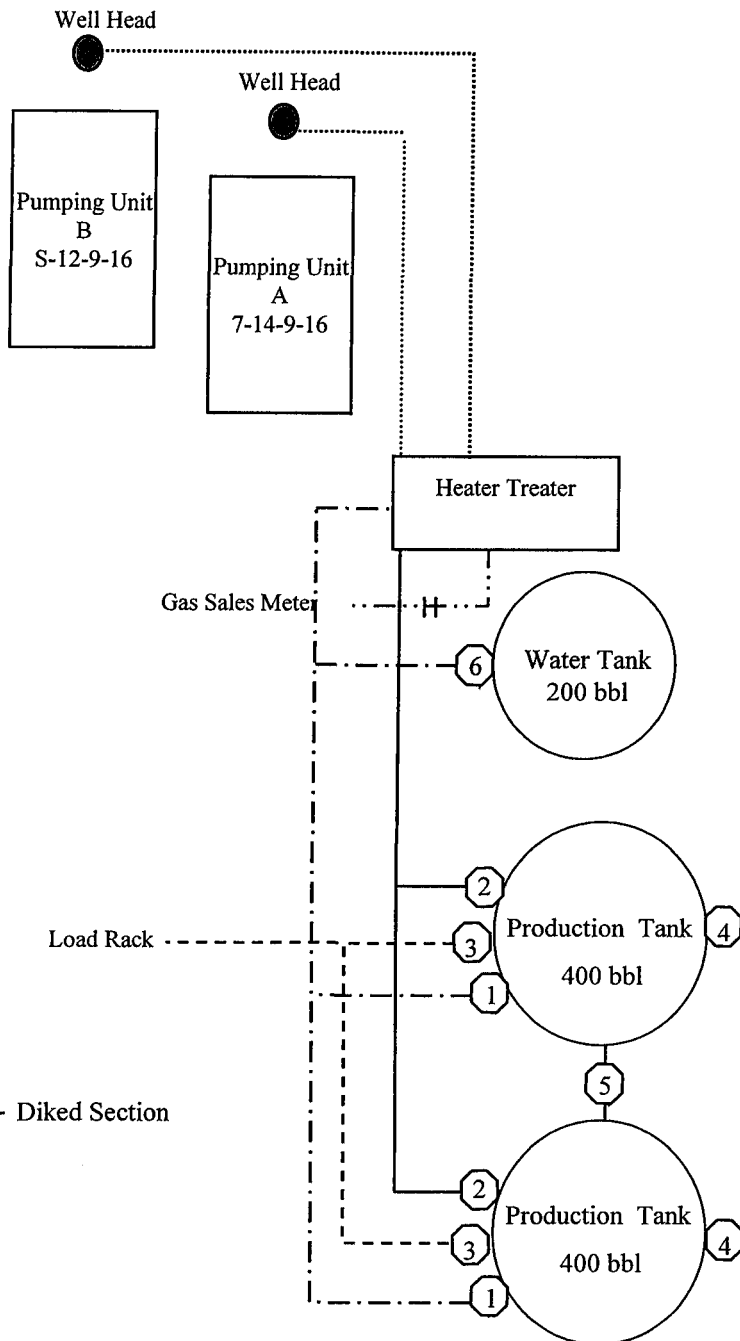
Jonah Federal S-12-9-16

From the 7-14-9-16 Location

SW/NE Sec. 14 T9S, R16E

Duchesne County, Utah

UTU-035521



Site Security Plan is held at the Pleasant Valley Office, Duchesne County, Utah

## Production Phase:

- 1) Valves 1, 3, and 4 sealed closed
- 2) Valves 2, 5, and 6 sealed open

## Sales Phase:

- 1) Valves 1, 2, 4, 5, and 6 sealed closed
- 2) Valve 3 open

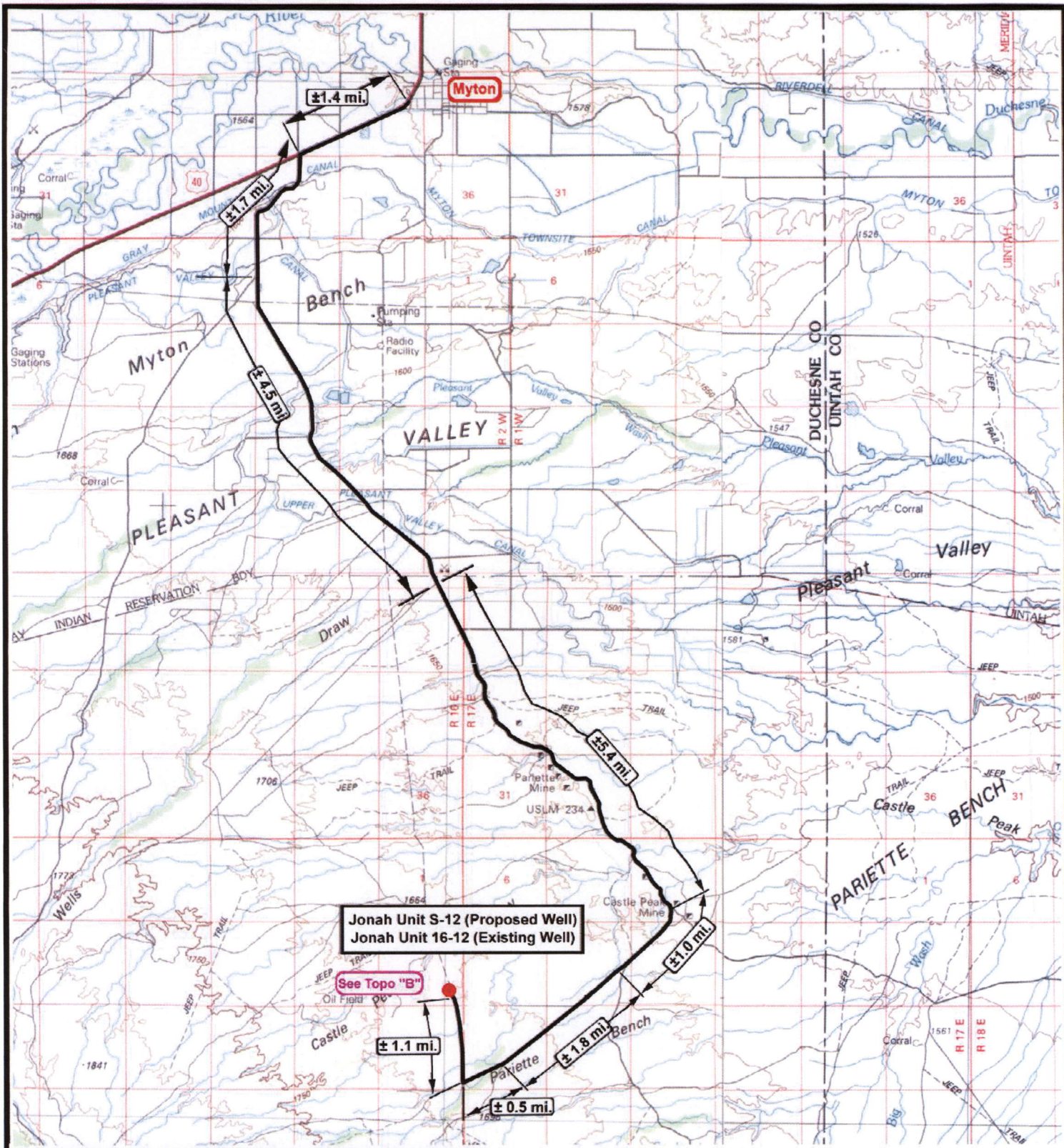
## Draining Phase:

- 1) Valves 1 and 6 open

## Legend

Emulsion Line	.....
Load Rack	-----
Water Line	.....
Gas Sales	.....
Oil Line	_____





Jonah Unit S-12 (Proposed Well)  
Jonah Unit 16-12 (Existing Well)

See Topo "B"

± 1.1 mi.

± 0.5 mi.

± 1.8 mi.

± 1.0 mi.

± 5.4 mi.

± 4.5 mi.

± 1.7 mi.

± 1.4 mi.

**NEWFIELD**  
Exploration Company

**Jonah Unit S-12-9-16 (Proposed Well)**

**Jonah Unit 16-12-9-16 (Existing Well)**

**Pad Location: SESE SEC. 12, T9S, R16E, S.L.B.&M.**



*Tri-State  
Land Surveying Inc.*

(435) 781-2501  
180 North Vernal Ave. Vernal, Utah 84078

SCALE: 1:100,000

DRAWN BY: mw

DATE: 12-14-2007

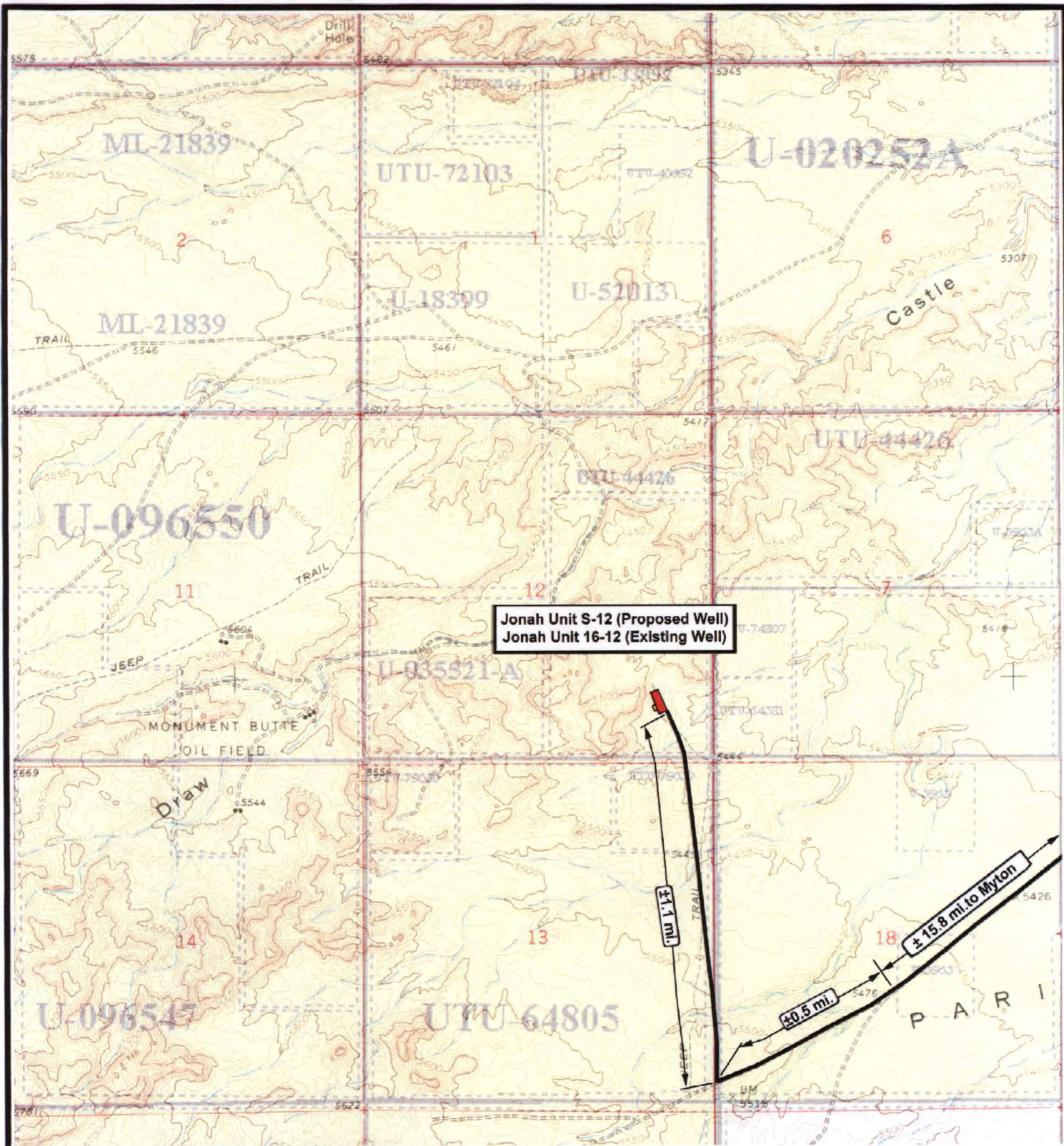
**Legend**

Existing Road


TOPOGRAPHIC MAP

**"A"**





Jonah Unit S-12 (Proposed Well)  
Jonah Unit 16-12 (Existing Well)



**NEWFIELD**  
Exploration Company

**Jonah Unit S-12-9-16 (Proposed Well)**  
**Jonah Unit 16-12-9-16 (Existing Well)**  
 Pad Location: SESE SEC. 12, T9S, R16E, S.L.B.&M.





**Tri-State**  
Land Surveying Inc.  
(435) 781-2501  
180 North Vernal Ave. Vernal, Utah 84078

SCALE: 1" = 2,000'  
 DRAWN BY: mw  
 DATE: 12-14-2007

**Legend**


Existing Road

**TOPOGRAPHIC MAP**

"B"







**NEWFIELD**  
Exploration Company

**Jonah Unit S-12-9-16 (Proposed Well)**  
**Jonah Unit 16-12-9-16 (Existing Well)**  
 Pad Location: SESE SEC. 12, T9S, R16E, S.L.B.&M.






**Tri-State**  
Land Surveying Inc.  
 (435) 781-2501  
 180 North Vernal Ave. Vernal, Utah 84078

SCALE: 1" = 2,000'

DRAWN BY: mw

DATE: 12-14-2007

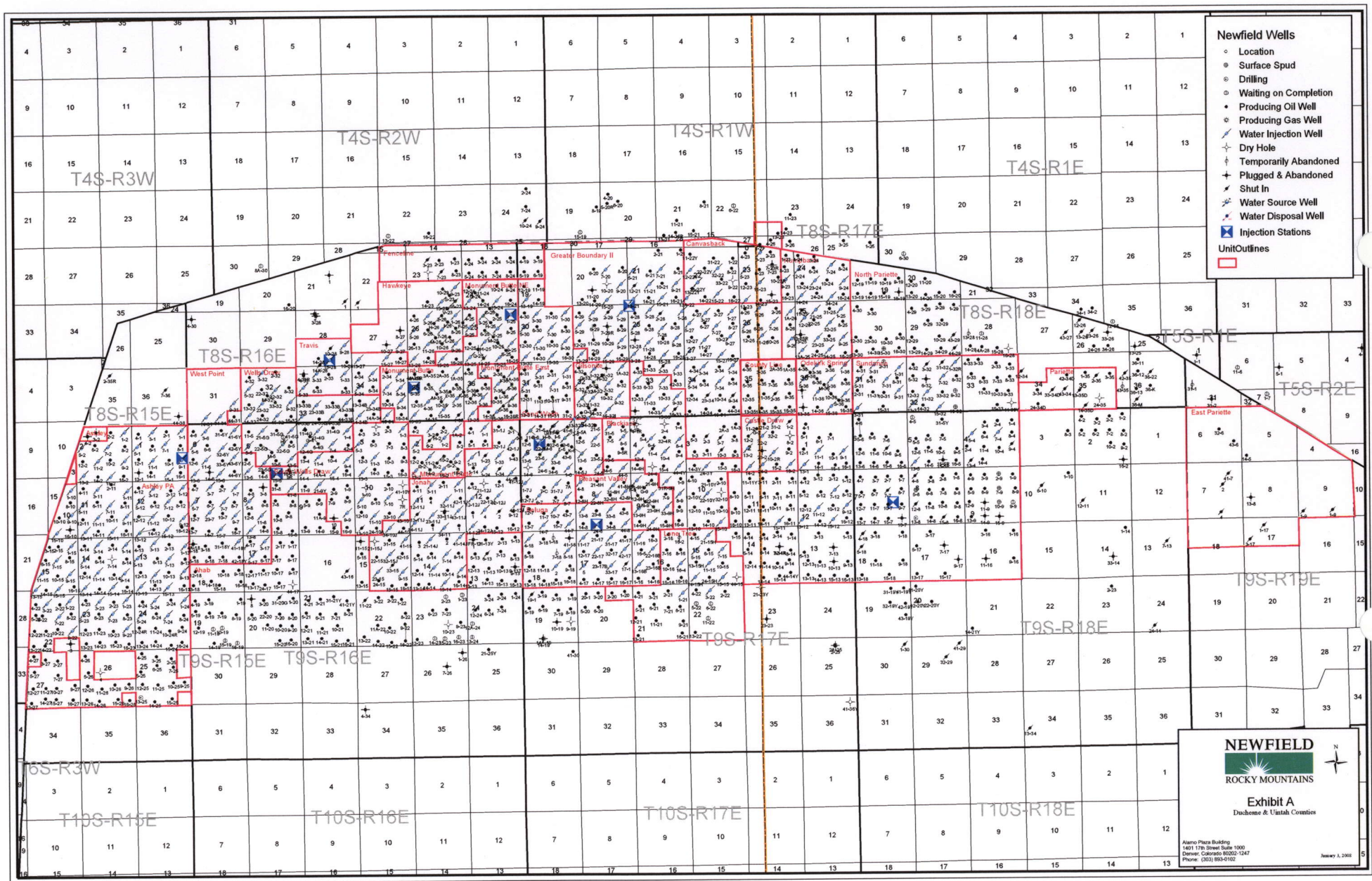
**Legend**

 Roads

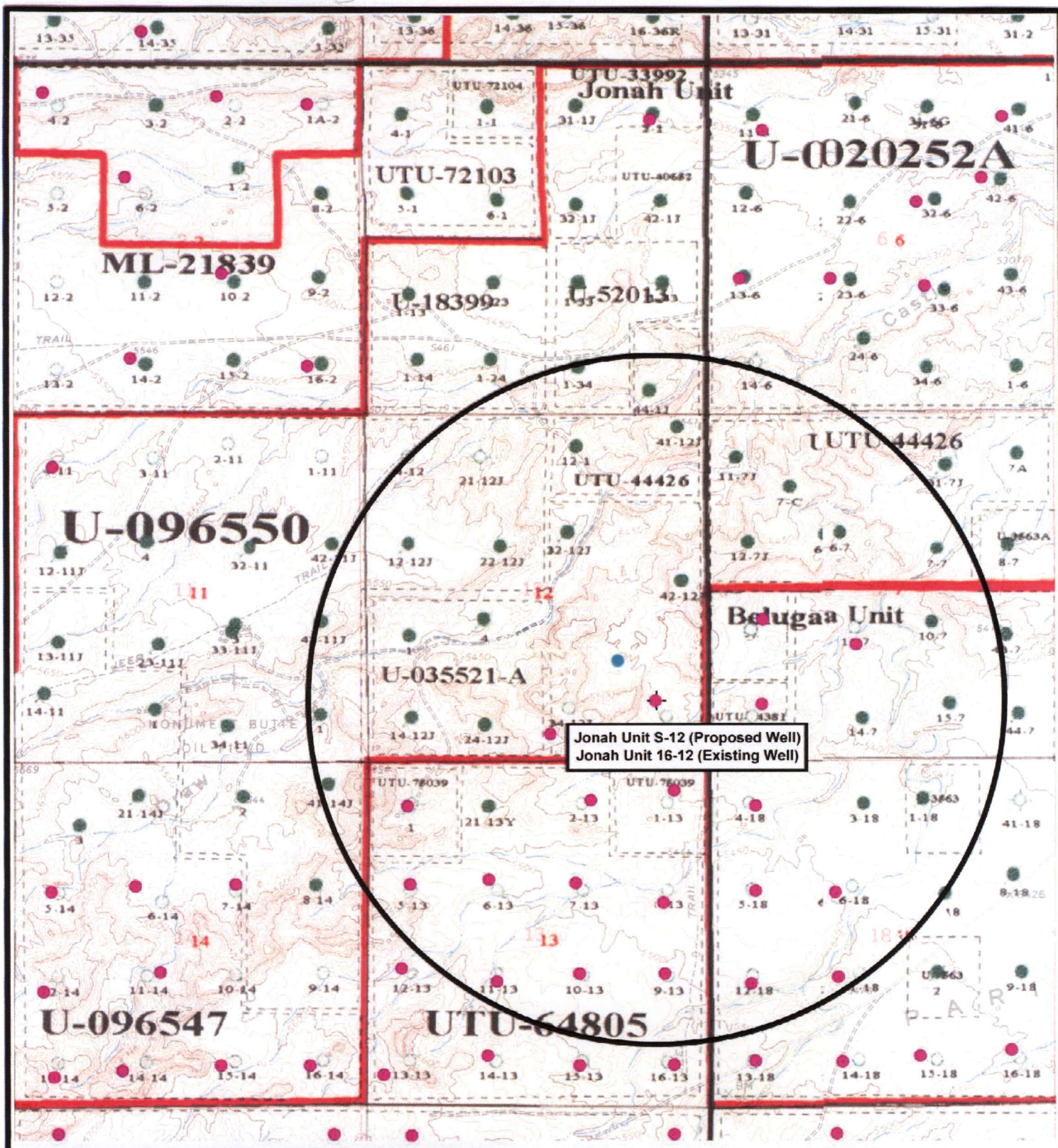
TOPOGRAPHIC MAP




"C"









 <p><b>NEWFIELD</b> Exploration Company</p>		 <p><b>Tri-State</b> Land Surveying Inc. (435) 781-2501 180 North Vernal Ave. Vernal, Utah 84078</p> <p>SCALE: 1" = 2,000' DRAWN BY: mw DATE: 12-14-2007</p>	<p><b>Legend</b></p> <ul style="list-style-type: none"> <li>● Pad Location</li> <li>● Bottom Hole Location</li> <li>○ One-Mile Radius</li> </ul> <p><b>Exhibit "B"</b></p>
<p><b>Jonah Unit S-12-9-16 (Proposed Well)</b> <b>Jonah Unit 16-12-9-16 (Existing Well)</b> Pad Location: SESE SEC. 12, T9S, R16E, S.L.B.&amp;M.</p>			

# 2-M SYSTEM

Blowout Prevention Equipment Systems

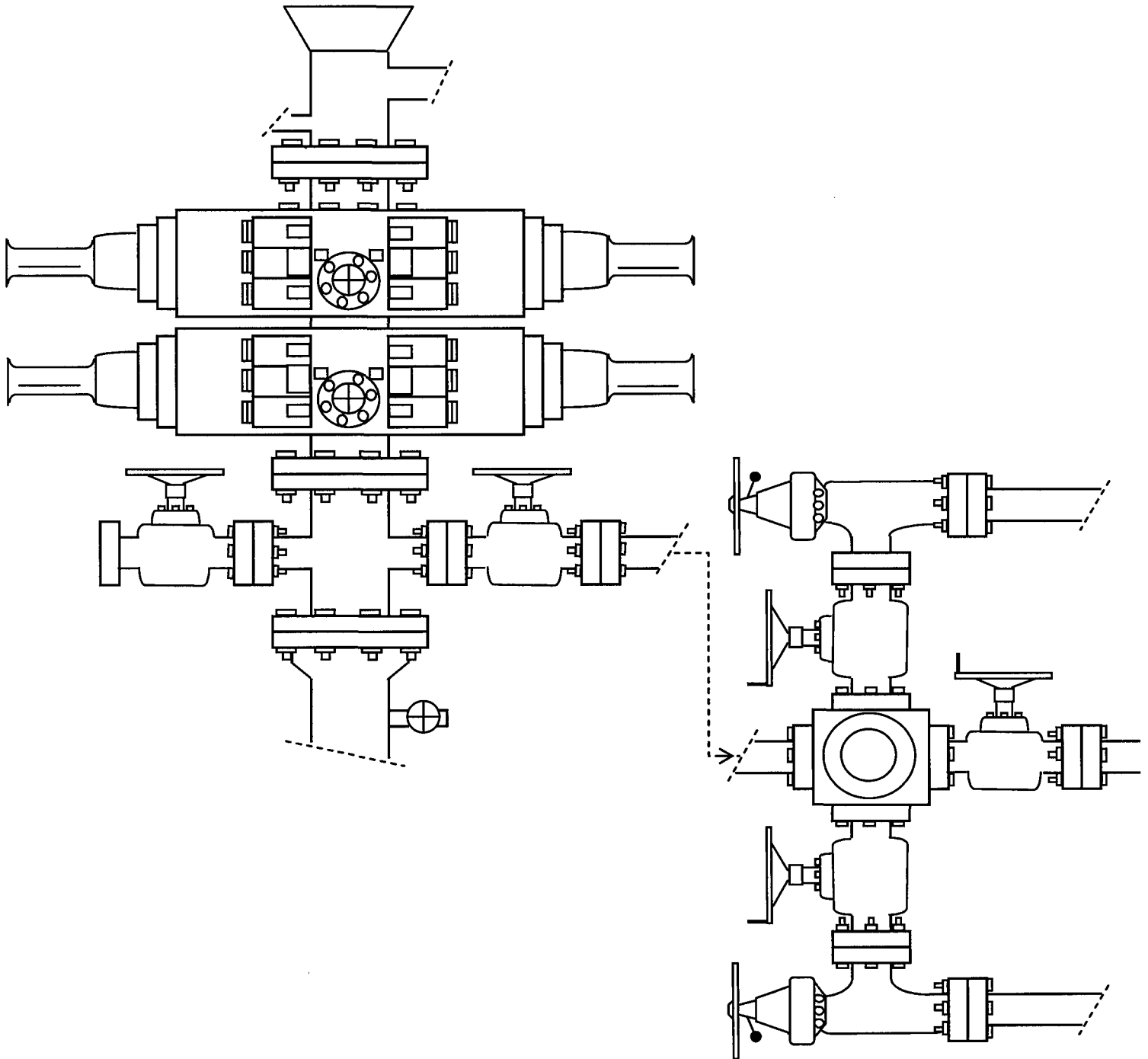


EXHIBIT C



**WORKSHEET**  
**APPLICATION FOR PERMIT TO DRILL**

APD RECEIVED: 06/25/2008

API NO. ASSIGNED: 43-013-34010

WELL NAME: JONAH FED S-12-9-16

OPERATOR: NEWFIELD PRODUCTION ( N2695 )

PHONE NUMBER: 435-646-3721

CONTACT: MANDIE CROZIER

PROPOSED LOCATION:

SESE 12 090S 160E

SURFACE: 0880 FSL 0842 FEL

BOTTOM: 1265 FSL 1605 FEL

COUNTY: DUCHESNE

LATITUDE: 40.04053 LONGITUDE: -110.0606

UTM SURF EASTINGS: 580140 NORTHINGS: 4432468

FIELD NAME: MONUMENT BUTTE ( 105 )

INSPECT LOCATN BY: / /

Tech Review	Initials	Date
-------------	----------	------

Engineering		
-------------	--	--

Geology		
---------	--	--

Surface		
---------	--	--

LEASE TYPE: 1 - Federal

LEASE NUMBER: UTU-035521

PROPOSED FORMATION: GRRV

SURFACE OWNER: 1 - Federal

COALBED METHANE WELL? NO

RECEIVED AND/OR REVIEWED:

☒ Plat  
☒ Bond: Fed[1] Ind[] Sta[] Fee[]  
(No. WYB000493 )  
☒ Potash (Y/N)  
☒ Oil Shale 190-5 (B) or 190-3 or 190-13  
☒ Water Permit  
(No. 43-10136 )  
☒ RDCC Review (Y/N)  
(Date: )  
☒ Fee Surf Agreement (Y/N)  
☒ Intent to Commingle (Y/N)

LOCATION AND SITING:

☐ R649-2-3.  
Unit: JONAH (GRRV)  
☐ R649-3-2. General  
Siting: 460 From Qtr/Qtr & 920' Between Wells  
☐ R649-3-3. Exception  
☒ Drilling Unit  
Board Cause No: 228-2  
Eff Date: 7-16-1993  
Siting: Does not Suspend General Siting  
☒ R649-3-11. Directional Drill

COMMENTS:

*See Separate file*

STIPULATIONS:

*1. Federal Approval*





# United States Department of the Interior

## BUREAU OF LAND MANAGEMENT

Utah State Office  
P.O. Box 45155  
Salt Lake City, Utah 84145-0155

IN REPLY REFER TO:  
3160  
(UT-922)

June 26, 2008

### Memorandum

To: Assistant District Manager Minerals, Vernal District  
From: Michael Coulthard, Petroleum Engineer  
Subject: 2008 Plan of Development Jonah Unit, Duchesne  
County, Utah.

Pursuant to email between Diana Whitney, Division of Oil, Gas and Mining, and Mickey Coulthard, Utah State Office, Bureau of Land Management, the following wells are planned for calendar year 2008 within the Jonah Unit, Duchesne County, Utah.

API#	WELL NAME	LOCATION
(Proposed PZ Green River)		
43-013-34010	Jonah Fed S-12-9-16	Sec 12 T09S R16E 0880 FSL 0842 FEL BHL Sec 12 T09S R16E 1265 FSL 1605 FEL
43-013-34011	Jonah Fed N-14-9-16	Sec 14 T09S R16E 1823 FSL 0547 FWL BHL Sec 14 T09S R16E 2540 FSL 1325 FWL
43-013-34012	Jonah Fed H-14-9-16	Sec 14 T09S R16E 1899 FNL 1909 FEL BHL Sec 14 T09S R16E 1195 FNL 2595 FEL
43-013-34013	Jonah Fed I-14-9-16	Sec 14 T09S R16E 1919 FNL 1900 FEL BHL Sec 14 T09S R16E 1148 FNL 1243 FEL
43-013-34014	Jonah Fed K-15-9-16	Sec 15 T09S R16E 1839 FNL 0820 FEL BHL Sec 15 T09S R16E 2590 FSL 0170 FEL

We have no objections to permitting the wells so long as the unit operator receives an exception to the locating and siting requirements of the State of Utah (R649-3-2).

/s/ Michael L. Coulthard



June 30, 2008

State of Utah, Division of Oil, Gas and Mining  
ATTN: Diana Mason  
PO Box 145801  
Salt Lake City, UT 84114-5801

RE: Directional Drilling  
**Jonah Federal S-12-9-16**  
Jonah Unit  
UTU-72086A  
Surface Hole: T9S R16E, Section 12: SESE  
880' FSL 842' FEL  
Bottom Hole: T9S R16E, Section 12  
1265' FSL 1605' FEL  
Duchesne County, Utah

Dear Ms. Mason;

Pursuant to the filing of Newfield Production Company's ("NPC") Application for Permit to Drill dated June 20, 2008, a copy of which is attached, for the above referenced well, and in accordance with Oil and Gas Conservation Rule R649-3-11, NPC hereby submits this letter as notice of our intention to directionally drill this well.

The surface hole location and bottom hole location of this well are both within the boundaries of the Jonah Unit UTU-72086A. Newfield certifies that it is the Jonah Unit Operator and all lands within 460 feet of the entire directional well bore are within the Jonah Unit.

NPC is permitting this well as a directional well in order to minimize surface disturbance. By directionally drilling from the referenced surface location, NPC will be able to utilize the existing roads and pipelines in this area.

NPC hereby requests our application for permit to drill be granted pursuant to R649-3-11. If you have any questions or require further information, please do not hesitate to contact the undersigned at 303-382-4444 or by email at [reveland@newfield.com](mailto:reveland@newfield.com). Your consideration of this matter is greatly appreciated.

Sincerely,

A handwritten signature in cursive script that reads "Roxann Eveland".

Roxann Eveland  
Land Associate

RECEIVED

JUL 02 2008

DIV. OF OIL, GAS & MINING

Form 3160-3  
(September 2001)

FORM APPROVED  
OMB No. 1004-0136  
Expires January 31, 2004

UNITED STATES  
DEPARTMENT OF THE INTERIOR  
BUREAU OF LAND MANAGEMENT  
APPLICATION FOR PERMIT TO DRILL OR REENTER

1a. Type of Work: <input checked="" type="checkbox"/> DRILL <input type="checkbox"/> REENTER		5. Lease Serial No. UTU-035521
1b. Type of Well: <input checked="" type="checkbox"/> Oil Well <input type="checkbox"/> Gas Well <input type="checkbox"/> Other <input checked="" type="checkbox"/> Single Zone <input type="checkbox"/> Multiple Zone		6. If Indian, Allottee or Tribe Name N/A
2. Name of Operator Newfield Production Company		7. If Unit or CA Agreement, Name and No. Jonah Unit
3a. Address Route #3 Box 3630, Myton UT 84052		8. Lease Name and Well No. Jonah Federal S-12-9-16
3b. Phone No. (include area code) (435) 646-3721		9. API Well No.
4. Location of Well (Report location clearly and in accordance with any State requirements.) At surface SE/SE 880' FSL 842' FEL At proposed prod. zone 1265' FSL 1605' FEL		10. Field and Pool, or Exploratory Monument Butte
14. Distance in miles and direction from nearest town or post office* Approximately 17.4 miles southwest of Myton, Utah		11. Sec., T., R., M., or Blk. and Survey or Area Sec. 12, T9S R16E
15. Distance from proposed* location to nearest property or lease line, ft. (Also to nearest drig. unit line, if any) Approx. 1035' f/line, 1265' f/unit	16. No. of Acres in lease 20.0000	17. Spacing Unit dedicated to this well 20 Acres
18. Distance from proposed location* to nearest well, drilling, completed, applied for, on this lease, ft. Approx. 1153'	19. Proposed Depth 5980'	20. BLM/BIA Bond No. on file WYB000493
21. Elevations (Show whether DF, KDB, RT, GL, etc.) 5426' GL	22. Approximate date work will start* 4th Quarter 2008	23. Estimated duration Approximately seven (7) days from spud to rig release.

24. Attachments

The following, completed in accordance with the requirements of Onshore Oil and Gas Order No.1, shall be attached to this form:

- |   |  |
|---|--|
| 1. Well plat certified by a registered surveyor.  | 4. Bond to cover the operations unless covered by an existing bond on file (see Item 20 above).    |
| 2. A Drilling Plan.   | 5. Operator certification.   |
| 3. A Surface Use Plan (if the location is on National Forest System Lands, the SUPO shall be filed with the appropriate Forest Service Office). | 6. Such other site specific information and/or plans as may be required by the authorized officer. |

25. Signature	Name (Printed/Typed) Mandie Crozier	Date 6/20/08
Title Regulatory Specialist		
Approved by (Signature)	Name (Printed/Typed)	Date
Title Office		

Application approval does not warrant or certify the the applicant holds legal or equitable title to those rights in the subject lease which would entitle the applicant to conduct operations thereon.  
Conditions of approval, if any, are attached.

Title 18 U.S.C. Section 1001 and Title 43 U.S.C. Section 1212, make it a crime for any person knowingly and willfully to make to any department or agency of the United States any false, fictitious or fraudulent statements or representations as to any matter within its jurisdiction.

\*(Instructions on reverse)

RECEIVED

JUL 02 2008

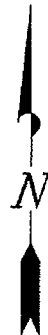
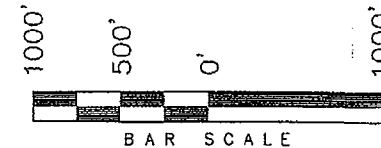
DIV. OF OIL, GAS & MINING

**T9S, R16E, S.L.B.&M.**

N89°57'W (G.L.O.)

**NEWFIELD PRODUCTION COMPANY**

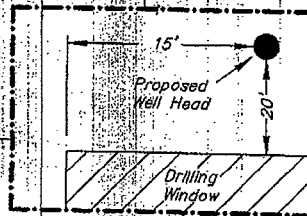
WELL LOCATION, JONAH UNIT S-12-9-16,  
LOCATED AS SHOWN IN THE SE 1/4 SE  
1/4 OF SECTION 12, T9S, R16E, S.L.B.&M.  
DUCHESE COUNTY, UTAH.



**WELL LOCATION:**  
**JONAH UNIT S-12-9-16**  
ELEV. EXIST. GRADED GROUND = 5426'

**12**

1910  
Brass Cap



**Detail**  
No. Scale

Bottom  
of Hole

1605'  
Top of  
Hole

See  
Detail At  
Left

842'

200'

880'

DRILLING  
WINDOW

NORTH (G.L.O.)  
2640.18' (Measured)  
NORTH (G.L.O.)

1910  
Brass Cap

N89°58'50"W - 2645.78' (Meas.)

N89°59'04"W - 2643.34' (Meas.)

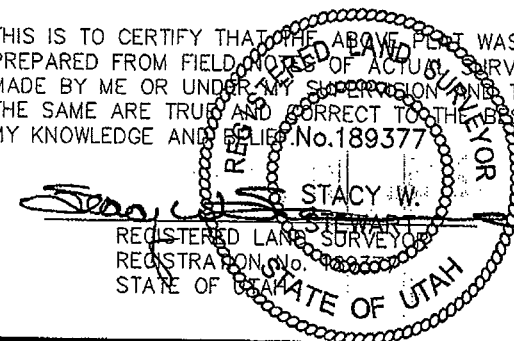
N89°56'W - 80.00' (G.L.O.)

SECTION CORNERS LOCATED

BASIS OF ELEV.  
U.S.G.S. 1/2 min. QUAD (MYTON SE)

**JONAH UNIT S-12-9-16**  
(Surface Location) NAD 83  
LATITUDE = 40° 02' 25.83"  
LONGITUDE = 110° 03' 40.87"

THIS IS TO CERTIFY THAT THE ABOVE PLAT WAS  
PREPARED FROM FIELD NOTES OF ACTUAL SURVEYS  
MADE BY ME OR UNDER MY SUPERVISION AND THAT  
THE SAME ARE TRUE AND CORRECT TO THE BEST OF  
MY KNOWLEDGE AND BELIEF. No. 189377



**TRI STATE LAND SURVEYING & CONSULTING**

180 NORTH VERNAL AVE. - VERNAL, UTAH 84078

(435) 781-2501

DATE SURVEYED:  
12-01-07

SURVEYED BY: T.H.

DATE DRAWN:  
12-14-07

DRAWN BY: F.T.M.

REVISED:  
02-19-08 L.C.S.

SCALE: 1" = 1000'



JON M. HUNTSMAN, JR.  
Governor

GARY R. HERBERT  
Lieutenant Governor

# State of Utah

## DEPARTMENT OF NATURAL RESOURCES

MICHAEL R. STYLER  
Executive Director

### Division of Oil, Gas and Mining

JOHN R. BAZA  
Division Director

July 7, 2008

Newfield Production Company  
Rt. #3, Box 3630  
Myton, UT 84052

Re: Jonah Federal S-12-9-16 Well, Surface Location 880' FSL, 842' FEL, SE SE, Sec. 12,  
T. 9 South, R. 16 East, Bottom Location 1265' FSL, 1605' FEL, SW SE, Sec. 12,  
T. 9 South, R. 16 East, Duchesne County, Utah

Gentlemen:

Pursuant to the provisions and requirements of Utah Code Ann. § 40-6-1 *et seq.*, Utah Administrative Code R649-3-1 *et seq.*, and the attached Conditions of Approval, approval to drill the referenced well is granted.

This approval shall expire one year from the above date unless substantial and continuous operation is underway, or a request for extension is made prior to the expiration date. The API identification number assigned to this well is 43-013-34010.

Sincerely,

Gil Hunt  
Associate Director

pab  
Enclosures

cc: Duchesne County Assessor  
Bureau of Land Management, Vernal Office

Operator: Newfield Production Company  
Well Name & Number Jonah Federal S-12-9-16  
API Number: 43-013-34010  
Lease: UTU-035521

Surface Location: SE SE Sec. 12 T. 9 South R. 16 East  
Bottom Location: SW SE Sec. 12 T. 9 South R. 16 East

### Conditions of Approval

#### 1. General

Compliance with the requirements of Utah Admin. R. 649-1 *et seq.*, the Oil and Gas Conservation General Rules, and the applicable terms and provisions of the approved Application for permit to drill.

#### 2. Notification Requirements

Notify the Division within 24 hours of spudding the well.

- Contact Carol Daniels at (801) 538-5284

Notify the Division prior to commencing operations to plug and abandon the well.

- Contact Dustin Doucet at (801) 538-5281 (801) 733-0983 home

#### 3. Reporting Requirements

All required reports, forms and submittals will be promptly filed with the Division, including but not limited to the Entity Action Form (Form 6), Report of Water Encountered During Drilling (Form 7), Weekly Progress Reports for drilling and completion operations, and Sundry Notices and Reports on Wells requesting approval of change of plans or other operational actions.

4. State approval of this well does not supersede the required federal approval, which must be obtained prior to drilling.

5. In accordance with Utah Admin. R. 649-3-11, Directional Drilling, the operator shall submit a complete angular deviation and directional survey report to the Division within 30 days following completion of the well.

RECEIVED  
VERNAL FIELD OFFICE

Form 3160-3  
(September 2001)

2008 JUN 25 PM 12 28  
UNITED STATES  
DEPARTMENT OF THE INTERIOR  
BUREAU OF LAND MANAGEMENT  
BUREAU OF LAND MGMT  
APPLICATION FOR PERMIT TO DRILL OR REENTER

FORM APPROVED  
OMB No. 1004-0136  
Expires January 31, 2004

5. Lease Serial No.  
UTU-035521  
6. If Indian, Allottee or Tribe Name  
N/A

1a. Type of Work: ☒ DRILL ☐ REENTER  
1b. Type of Well: ☒ Oil Well ☐ Gas Well ☐ Other ☒ Single Zone ☐ Multiple Zone

7. If Unit or CA Agreement, Name and No.  
Jonah Unit

8. Lease Name and Well No.  
Jonah Federal S-12-9-16

2. Name of Operator  
Newfield Production Company

9. API Well No.  
13-013-34010

3a. Address  
Route #3 Box 3630, Myton UT 84052

3b. Phone No. (include area code)  
(435) 646-3721

10. Field and Pool, or Exploratory  
Monument Butte

4. Location of Well (Report location clearly and in accordance with any State requirements. \*)

At surface SE/SE 880' FSL 842' FEL  
At proposed prod. zone 1265' FSL 1605' FEL

11. Sec., T., R., M., or Blk. and Survey or Area  
Sec. 12, T9S R16E

14. Distance in miles and direction from nearest town or post office\*  
Approximately 17.4 miles southwest of Myton, Utah

12. County or Parish  
Duchesne

13. State  
UT

15. Distance from proposed\*  
location to nearest  
property or lease line, ft.  
(Also to nearest drig. unit line, if any) Approx. 1035' f/lease, 1265' f/unit

16. No. of Acres in lease  
240.00

17. Spacing Unit dedicated to this well  
20 Acres

18. Distance from proposed location\*  
to nearest well, drilling, completed,  
applied for, on this lease, ft. Approx. 1153'

19. Proposed Depth  
5980'

20. BLM/BIA Bond No. on file  
WYB000493

21. Elevations (Show whether DF, KDB, RT, GL, etc.)  
5426' GL

22. Approximate date work will start\*  
4th Quarter 2008

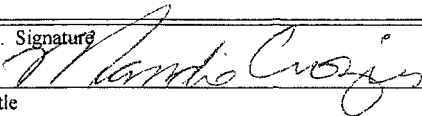
23. Estimated duration  
Approximately seven (7) days from spud to rig release.

24. Attachments

The following, completed in accordance with the requirements of Onshore Oil and Gas Order No.1, shall be attached to this form:

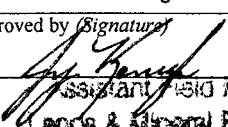
1. Well plat certified by a registered surveyor.
2. A Drilling Plan.
3. A Surface Use Plan (if the location is on National Forest System Lands, the SUPO shall be filed with the appropriate Forest Service Office).

4. Bond to cover the operations unless covered by an existing bond on file (see Item 20 above).
5. Operator certification.
6. Such other site specific information and/or plans as may be required by the authorized officer.

25. Signature   
Title  
Regulatory Specialist

Name (Printed/Typed)  
Mandie Crozier

Date  
6/20/08

Approved by (Signature)   
Title Assistant Field Manager  
Lands & Mineral Resources

Name (Printed/Typed)  
Jerry Knuts  
Office

VERNAL FIELD OFFICE

AUG 25 2008

Application approval does not warrant or certify the the applicant holds legal or equitable title to those rights in the subject lease which would entitle the applicant to conduct operations thereon.

Conditions of approval, if any, are attached.

Title 18 U.S.C. Section 1001 and Title 43 U.S.C. Section 1212, make it a crime for any person knowingly and willfully to make to any department or agency of the United States any false, fictitious or fraudulent statements or representations as to any matter within its jurisdiction.

\*(Instructions on reverse)

RECEIVED

SEP 16 2008

DIV. OF OIL, GAS & MINING

NOS 06/04/08  
AFMSS# 08PR0848A

11006M

NOTICE OF APPROVAL

CONDITIONS OF APPROVAL ATTACHED



UNITED STATES DEPARTMENT OF THE INTERIOR  
BUREAU OF LAND MANAGEMENT  
VERNAL FIELD OFFICE

170 South 500 East

VERNAL, UT 84078

(435) 781-4400



**CONDITIONS OF APPROVAL FOR APPLICATION FOR PERMIT TO DRILL**

Company: Newfield Production Company  
Well No: Jonah Federal S-12-9-16  
API No: 43-013-34010

Location: SESE, Sec. 12, T9S, R16E  
Lease No: UTU-035521  
Agreement: Jonah Unit

Title	Name	Office Phone Number	Cell Phone Number
Petroleum Engineer:	Matt Baker	(435) 781-4490	(435) 828-4470
Petroleum Engineer:	Michael Lee	(435) 781-4432	(435) 828-7875
Petroleum Engineer:	James Ashley	(435) 781-4470	(435) 828-7874
Petroleum Engineer:	Ryan Angus	(435) 781-4430	(435) 828-7368
Supervisory Petroleum Technician:	Jamie Sparger	(435) 781-4502	(435) 828-3913
Supervisory NRS:	Karl Wright	(435) 781-4484	(435) 828-7381
NRS/Enviro Scientist:	Holly Villa	(435) 781-4404	(435) 828-3544
NRS/Enviro Scientist:	James Hereford	(435) 781-3412	
NRS/Enviro Scientist:	Chuck Macdonald	(435) 781-4441	(435) 828-7481
NRS/Enviro Scientist:	Dan Emmett	(435) 781-3414	
NRS/Enviro Scientist:	Paul Percival	(435) 781-4493	
NRS/Enviro Scientist:	Michael Cutler	(435) 781-3401	(435) 828-3546
NRS/Enviro Scientist:	Anna Figueroa	(435) 781-3407	(435) 828-3548
NRS/Enviro Scientist:	Verlyn Pindell	(435) 781-3402	(435) 828-3547
NRS/Enviro Scientist:	Darren Williams	(435) 781-4447	(435) 828-4029
NRS/Enviro Scientist:	Nathan Packer	(435) 781-3405	(435) 828-3545

Fax: (435) 781-3420

**A COPY OF THESE CONDITIONS SHALL BE FURNISHED TO YOUR  
FIELD REPRESENTATIVE TO INSURE COMPLIANCE**

All lease and/or unit operations are to be conducted in such a manner that full compliance is made with the applicable laws, regulations (43 CFR Part 3160), and this approved Application for Permit to Drill including Surface and Downhole Conditions of Approval. The operator is considered fully responsible for the actions of his subcontractors. A copy of the approved APD must be on location during construction, drilling, and completion operations. **This permit is approved for a two (2) year period, or until lease expiration, whichever occurs first. An additional extension, up to two (2) years, may be applied for by sundry notice prior to expiration.**

**NOTIFICATION REQUIREMENTS**

Location Construction (Notify Environmental Scientist)	- Forty-Eight (48) hours prior to construction of location and access roads.
Location Completion (Notify Environmental Scientist)	- Prior to moving on the drilling rig.
Spud Notice (Notify Petroleum Engineer)	- Twenty-Four (24) hours prior to spudding the well.
Casing String & Cementing (Notify Supv. Petroleum Tech.)	- Twenty-Four (24) hours prior to running casing and cementing all casing strings.
BOP & Related Equipment Tests (Notify Supv. Petroleum Tech.)	- Twenty-Four (24) hours prior to initiating pressure tests.
First Production Notice (Notify Petroleum Engineer)	- Within Five (5) business days after new well begins or production resumes after well has been off production for more than ninety (90) days.



***SURFACE USE PROGRAM  
CONDITIONS OF APPROVAL (COAs)***

- If there is an active Gilsonite mining operation within 2 miles of the well location, operator shall notify the Gilsonite operator at least 48 hours prior to any blasting during construction.
- If paleontological materials are uncovered during construction, the operator is to immediately stop work and contact the Authorized Officer (AO). A determination will be made by the AO as to what mitigation may be necessary for the discovered paleontologic material before construction can continue.

**SITE SPECIFIC CONDITIONS OF APPROVAL**

**Lease Notices from RMP:**

- The lessee/operator is given notice the area has been identified as containing Ferruginous hawk habitat. Modifications may be required in the Surface Use Plan to protect the Ferruginous hawk and/or its habitat from surface disturbance activities in accordance with Section 6 of the lease terms, Endangered Species Act, and 43 CFR 3101.1-2.
- The lessee/operator is given notice the area has been identified as containing Golden eagle habitat. Modifications may be required in the Surface Use Plan to protect the Golden eagle and/or its habitat from surface disturbance activities in accordance with Section 6 of the lease terms, Endangered Species Act, and 43 CFR 3101.1-2.

**Comments:**

- GIS data show the project area is within Mountain plover habitat. Given that the project area will be directionally drilled from an existing location and no new ground disturbance is proposed then no timing restrictions were applied to the proposed project.
- GIS data show the project area is within Burrowing owl habitat. Given that the project area will be directionally drilled from an existing location and no new ground disturbance is proposed then no timing restrictions were applied to the proposed project.

**Follow-up Actions and/or Recommendations:**

**Please be aware that this Special Status Species wildlife clearance is effective for 1 year from the date of the onsite date. Any proposals submitted after the date of this report (onsite) should require additional surveys and clearances.**

**CONDITIONS OF APPROVAL:**

- All traffic related to this action will be restricted to approved routes. Cross-country vehicle travel will not be allowed.
- All pipelines (surface and buried) will be laid within one 50' wide construction ROW, on one side of the road, and will reduce down to a 30' wide permanent ROW on lease.
- A temporary road ROW will not be granted. The road ROW will be 30 foot for construction and will reduce to an 18 foot running surface.

- The access road will be crowned and ditched. Flat-bladed roads are not allowed. All roads will have an 18', crowned (2 to 3% minimum), running surface. All roads will have drainage ditches along both sides of road.
- No vehicle travel, construction or routine maintenance activities shall be performed during periods when the soil is too wet to adequately support vehicles and/or construction equipment. If such equipment creates ruts in excess of three inches deep, the soil shall be deemed too wet to adequately support construction equipment.
- If additional erosion occurs during the life of this project, more culverts, low water crossings, berms, wing ditches or etc. will be needed to control the erosion.
- Low-water crossings will be appropriately constructed to avoid sedimentation of drainage ways and other water resources.
- Pipelines will be buried at all major drainage crossings.
- Prevent fill and stock piles from entering drainages.
- To insure impermeability, the reserve pit will be lined with a 16 ml or greater liner and felt prior to spudding.
- The liner is to be cut 5 feet below ground surface or at the level of the cuttings, whichever is deeper, and the excess liner material is to be disposed of at an authorized disposal site.
- When the reserve pit contains fluids or toxic substances, the operator must ensure animals do not ingest or become entrapped in pit fluids.
- Any hydrocarbons in the reserve pit will be removed **immediately** upon well completion; in accordance with 43 CFR 3162.7-1. Pits must be free of oil and other liquid and solid wastes prior to filling.
- Monument Butte SOP, Section 9.2 - Pit Fencing Minimum Standards - will be strictly adhered to. To include 9.2.2.3 - Corner posts will be cemented and/or braced in such a manner as to keep fence tight at all times.
- If Uinta Basin hookless cactus or other special status plants are found, construction will cease and the AO will be notified to determine the appropriate mitigation.
- **Within 90 calendar days of the approval date for this Application for Permit to Drill (APD), the operator/lessee shall submit to the Authorized Officer (AO), on Sundry Notice Form 3160-5, an Interim/Final Surface Reclamation Plan for surface disturbance on well pads, access roads, and pipelines. At a minimum, this will include the reshaping of the pad to the original contour to the extent possible; the respreading of the top soil up to the rig anchor points; and, the area reseeded using appropriate reclamation methods. The AO will provide written approval or concurrence within 30 calendar days of receipt.**

#### **Interim Reclamation:**

- The topsoil from the reserve pit shall be stripped and piled separately near the reserve pit.

- When the reserve pit is closed, it shall be recontoured and the topsoil respread, and the area shall be **seeded using a rangeland drill**. Seeding depth as per AO, or seed distributor. If portions of the site are too steep (>40%), or rocky, that portion may be broadcast seeded. If broadcasting seed, the seed shall be walked into the soil with a dozer immediately after the seeding is completed, or covered by soil using a drag chain. Seeding shall occur in the fall (August 1<sup>st</sup> until snow or ground is frozen) with the following seed mix:

Seed mix:

Common name	Latin name	lbs/acre	Recommended seed planting depth
Squirreltail grass	<i>Elymus elymoides</i>	3.0	¼ - ½"
Siberian wheatgrass	<i>Agropyron fragile</i>	1.0	½"
Shadscale saltbush	<i>Atriplex confertifolia</i>	0.50	½"
Four-wing saltbush	<i>Atriplex canescens</i>	0.50	½"
Gardner's saltbush	<i>Atriplex gardneri</i>	0.50	½"
Scarlet globemallow	<i>Sphaeralcea coccinea</i>	0.10	⅛ - ¼"

- All pounds are pure live seed.
- All seed and mulch will be certified weed free.
- Rates are set for drill seeding; double rate if broadcasting.
- Reseeding may be required if initial seeding is not successful.

#### Final reclamation:

- Once the location is plugged and abandoned, the well location, access, and any disturbed areas shall be recontoured to natural topography, topsoil shall be respread, and the entire location shall be seeded following guidelines in the seed mix bullet statement above. Final seed mix: same as interim.
- Noxious and/or invasive weeds will be controlled along access roads, pipelines, well sites, and all other applicable facilities. Any noxious and/or invasive weeds outbreak, directly attributed to the activities of the Operator, will be the responsibility of the Operator to control. On BLM administered land, a Pesticide Use Proposal (PUP) must be submitted and approved prior to the application of herbicides, pesticides, or other possibly hazardous chemicals.
- The topsoil from the reserve pit shall be stripped and piled separately near the reserve pit. When the reserve pit is closed, it shall be recontoured and the topsoil respread, and the area shall be seeded in the same manner as the location topsoil.
- Once the location is plugged and abandoned, it shall be recontoured to natural topology, topsoil shall be respread, and the entire location shall be seeded with a seed mix recommended by the AO (see above). Seed application will follow all guidelines in the interim seed mix bullet statement above. If reclamation seeding should take place using the broadcast method, the seed at a minimum will be walked into the soil with a dozer immediately after the seeding is completed.
- The authorized officer may prohibit surface disturbing activities during severe winter conditions to minimize watershed damage. This limitation does not apply to operation and maintenance of producing wells.

- The authorized officer may prohibit surface disturbing activities during wet or muddy conditions to minimize watershed damage. This limitation does not apply to operation and maintenance of producing wells.
- All well facilities not regulated by OSHA will be painted Carlsbad Canyon.
- All boulders with a length or diameter greater than 3 feet, that are found showing at the surface, will be stockpiled for use during final reclamation.
- Notify the Authorized Officer 48 hours prior to surface disturbing activities.

**DOWNHOLE PROGRAM  
CONDITIONS OF APPROVAL (COAs)**

**SITE SPECIFIC DOWNHOLE COAs:**

- None

**All provisions outlined in Onshore Oil & Gas Order #2 Drilling Operations shall be strictly adhered to.** The following items are emphasized:

**DRILLING/COMPLETION/PRODUCING OPERATING STANDARDS**

- The spud date and time shall be reported orally to Vernal Field Office within 24 hours of spudding.
- Notify Vernal Field Office Supervisory Petroleum Engineering Technician at least 24 hours in advance of casing cementing operations and BOPE & casing pressure tests.
- All requirements listed in Onshore Order #2 III. E. Special Drilling Operations are applicable for air drilling of surface hole.
- Blowout prevention equipment (BOPE) shall remain in use until the well is completed or abandoned. Closing unit controls shall remain unobstructed and readily accessible at all times. Choke manifolds shall be located outside of the rig substructure.
- All BOPE components shall be inspected daily and those inspections shall be recorded in the daily drilling report. Components shall be operated and tested as required by Onshore Oil & Gas Order No. 2 to insure good mechanical working order. All BOPE pressure tests shall be performed by a test pump with a chart recorder and **NOT** by the rig pumps. Test shall be reported in the driller's log.
- BOP drills shall be initially conducted by each drilling crew within 24 hours of drilling out from under the surface casing and weekly thereafter as specified in Onshore Oil & Gas Order No. 2.
- Casing pressure tests are required before drilling out from under all casing strings set and cemented in place.
- No aggressive/fresh hard-banded drill pipe shall be used within casing.
- **Cement baskets shall not be run on surface casing.**
- The operator must report all shows of water or water-bearing sands to the BLM. If flowing water is encountered it must be sampled, analyzed, and a copy of the analyses submitted to the BLM Vernal Field Office.
- The operator must report encounters of all non oil & gas mineral resources (such as Gilsonite, tar sands, oil shale, trona, etc.) to the Vernal Field Office, in writing, within 5 working days of each encounter. Each report shall include the well name/number, well location, date and depth (from KB or GL) of encounter, vertical footage of the encounter and, the name of the person

making the report (along with a telephone number) should the BLM need to obtain additional information.

- A complete set of angular deviation and directional surveys of a directional well will be submitted to the Vernal BLM office engineer within 30 days of the completion of the well.
- While actively drilling, chronologic drilling progress reports shall be filed directly with the BLM, Vernal Field Office on a weekly basis in sundry, letter format or e-mail to the Petroleum Engineers until the well is completed.
- A cement bond log (CBL) will be run from the production casing shoe to the top of cement and shall be utilized to determine the bond quality for the production casing. Submit a field copy of the CBL to this office.
- **Please submit an electronic copy of all other logs run on this well in LAS format to UT\_VN\_Welllogs@BLM.gov. This submission will supersede the requirement for submittal of paper logs to the BLM.**
- There shall be no deviation from the proposed drilling, completion, and/or workover program as approved. Safe drilling and operating practices must be observed. Any changes in operation must have prior approval from the BLM Vernal Field Office.

## OPERATING REQUIREMENT REMINDERS:

- All wells, whether drilling, producing, suspended, or abandoned, shall be identified in accordance with 43 CFR 3162.6. There shall be a sign or marker with the name of the operator, lease serial number, well number, and surveyed description of the well.
- In accordance with 43 CFR 3162.4-3, this well shall be reported on the "Monthly Report of Operations" (Oil and Gas Operations Report ((OGOR)) starting with the month in which operations commence and continue each month until the well is physically plugged and abandoned. This report shall be filed in duplicate, directly with the Minerals Management Service, P.O. Box 17110, Denver, Colorado 80217-0110, or call 1-800-525-7922 (303) 231-3650 for reporting information.
- Should the well be successfully completed for production, the BLM Vernal Field office must be notified when it is placed in a producing status. Such notification will be by written communication and must be received in this office by not later than the fifth business day following the date on which the well is placed on production. The notification shall provide, as a minimum, the following informational items:
  - Operator name, address, and telephone number.
  - Well name and number.
  - Well location (¼, Sec., Twn, Rng, and P.M.).
  - Date well was placed in a producing status (date of first production for which royalty will be paid).
  - The nature of the well's production, (i.e., crude oil, or crude oil and casing head gas, or natural gas and entrained liquid hydrocarbons).
  - The Federal or Indian lease prefix and number on which the well is located; otherwise the non-Federal or non-Indian land category, i.e., State or private.
  - Unit agreement and/or participating area name and number, if applicable.
  - Communitization agreement number, if applicable.
- Any venting or flaring of gas shall be done in accordance with Notice to Lessees (NTL) 4A and needs prior approval from the BLM Vernal Field Office.
- All undesirable events (fires, accidents, blowouts, spills, discharges) as specified in NTL 3A will be reported to the BLM, Vernal Field Office. Major events, as defined in NTL3A, shall be reported verbally within 24 hours, followed by a written report within 15 days. "Other than Major Events" will be reported in writing within 15 days. "Minor Events" will be reported on the Monthly Report of Operations and Production.
- Whether the well is completed as a dry hole or as a producer, "Well Completion and Recompletion Report and Log" (BLM Form 3160-4) shall be submitted not later than 30 days after completion of the well or after completion of operations being performed, in accordance with 43 CFR 3162.4-1. Two copies of all logs run, core descriptions, and all other surveys or

data obtained and compiled during the drilling, workover, and/or completion operations, shall be filed on BLM Form 3160-4. Submit with the well completion report a geologic report including, at a minimum, formation tops, and a summary and conclusions. Also include deviation surveys, sample descriptions, strip logs, core data, drill stem test data, and results of production tests if performed. Samples (cuttings, fluid, and/or gas) shall be submitted only when requested by the BLM, Vernal Field Office.

- All off-lease storage, off-lease measurement, or commingling on-lease or off-lease, shall have prior written approval from the BLM Vernal Field Office.
- Oil and gas meters shall be calibrated in place prior to any deliveries. The BLM Vernal Field Office Petroleum Engineers will be provided with a date and time for the initial meter calibration and all future meter proving schedules. A copy of the meter calibration reports shall be submitted to the BLM Vernal Field Office. All measurement facilities will conform to the API standards for liquid hydrocarbons and the AGA standards for natural gas measurement. All measurement points shall be identified as the point of sale or allocation for royalty purposes.
- A schematic facilities diagram as required by Onshore Oil & Gas Order No. 3 shall be submitted to the BLM Vernal Field Office within 30 days of installation or first production, whichever occurs first. All site security regulations as specified in Onshore Oil & Gas Order No. 3 shall be adhered to. All product lines entering and leaving hydrocarbon storage tanks will be effectively sealed in accordance with Onshore Oil & Gas Order No. 3.
- Any additional construction, reconstruction, or alterations of facilities, including roads, gathering lines, batteries, etc., which will result in the disturbance of new ground, shall require the filing of a suitable plan and need prior approval of the BLM Vernal Field Office. Emergency approval may be obtained orally, but such approval does not waive the written report requirement.
- No location shall be constructed or moved, no well shall be plugged, and no drilling or workover equipment shall be removed from a well to be placed in a suspended status without prior approval of the BLM Vernal Field Office. If operations are to be suspended for more than 30 days, prior approval of the BLM Vernal Field Office shall be obtained and notification given before resumption of operations.
- Pursuant to Onshore Oil & Gas Order No. 7, this is authorization for pit disposal of water produced from this well for a period of 90 days from the date of initial production. A permanent disposal method must be approved by this office and in operation prior to the end of this 90-day period. In order to meet this deadline, an application for the proposed permanent disposal method shall be submitted along with any necessary water analyses, as soon as possible, but no later than 45 days after the date of first production. Any method of disposal which has not been approved prior to the end of the authorized 90-day period will be considered as an Incident of Noncompliance and will be grounds for issuing a shut-in order until an acceptable manner for disposing of said water is provided and approved by this office.
- Unless the plugging is to take place immediately upon receipt of oral approval, the Field Office Petroleum Engineers must be notified at least 24 hours in advance of the plugging of the well, in order that a representative may witness plugging operations. If a well is suspended or abandoned, all pits must be fenced immediately until they are backfilled. The "Subsequent Report of Abandonment" (Form BLM 3160-5) must be submitted within 30 days after the actual plugging of the well bore, showing location of plugs, amount of cement in each, and amount of casing left in hole, and the current status of the surface restoration.



## DIVISION OF OIL, GAS AND MINING

### **SPUDDING INFORMATION**

Name of Company: Newfield Production Company

Well Name: Jonah Fed S-12-9-16

API No: 43-013-34010 Lease Type: Federal

Section 12 Township 09S Range 16E County Duchesne

Drilling Contractor Ross Rig Rig # #21

### **SPUDDED:**

Date 10-15-08

Time 3:00 PM

How Dry

**Drilling will Commence:** \_\_\_\_\_

Reported by Alvin Nielsen

Telephone # 435-823-7468

Date 10-16-08 Signed RM

STATE OF UTAH  
DIVISION OF OIL, GAS AND MINING  
ENTITY ACTION FORM - FORM 6

OPERATOR: NEWFIELD PRODUCTION COMPANY  
ADDRESS: RT. 3 BOX 3630  
MYTON, UT 84052

OPERATOR ACCT. NO. N2695

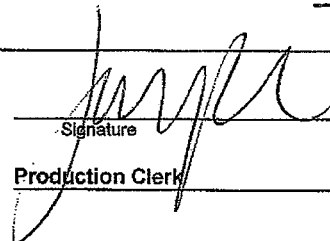
ACTION CODE	CURRENT ENTITY NO.	NEW ENTITY NO.	API NUMBER	WELL NAME	WELL LOCATION					SPUD DATE	EFFECTIVE DATE
					QQ	SC	TP	RG	COUNTY		
B	99999	12417 ✓	4301333933	LONE TREE FEDERAL N-15-9-17	NWSW	15	9S	17E	DUCHESNE	10/6/2008	10/27/08
WELL 1 COMMENTS: GRRV BHL = NESW											
B	99999	12417 ✓	4304733934	LONE TREE C-22-9-17	NWNE	22	9S	17E	DUCHESNE	10/13/2008	10/27/08
GRRV 4301333934 BHL = NWNE DUCHESNE											
A	99999	17140	4301333742	UTE TRIBAL 11-24-4-2	NESW	24	4S	2W	DUCHESNE	10/14/2008	10/27/08
GRRV DUCHESNE											
B	99999	12308 ✓	4301333819	SANDWASH Q-31-8-17	NWSW	31	8S	17E	DUCHESNE	10/14/2008	10/27/08
GRRV BHL = NWSW											
A	99999	17141	4304739631	FEDERAL 8-29-9-18	SENE	29	9S	18E	UINTAH	10/9/2008	10/27/08
WELL 5 COMMENTS: GRRV											
B	99999	11492 ✓	4301334010	JONAH FEDERAL S-12-9-16	SESE	12	9S	16E	DUCHESNE	10/15/2008	10/27/08
WELL 5 COMMENTS: GRRV BHL = SWSE											

ACTION CODES (See instructions on back of form)

- A - 1 new entity for new well (single well only)
- B - 1 well to existing entity (group or unit well)
- C - from one existing entity to another existing entity
- D - well from one existing entity to a new entity
- E - ther (explain in comments section)

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DIV. OF OIL, GAS & MINING

Signature:   
JENTRI PARK  
Production Clerk  
10/15/08  
Date

NOTE: Use COMMENT section to explain why each Action Code was selected.

UNITED STATES  
DEPARTMENT OF THE INTERIOR  
BUREAU OF LAND MANAGEMENT

**SUNDRY NOTICES AND REPORTS ON WELLS**  
Do not use this form for proposals to drill or to re-enter an  
abandoned well. Use Form 3160-3 (APD) for such proposals.

FORM APPROVED  
OMB No. 1004-0137  
Expires: July 31, 2010

**SUBMIT IN TRIPLICATE - Other Instructions on page 2**

1. Type of Well  
☒ Oil Well ☐ Gas Well ☐ Other

2. Name of Operator  
NEWFIELD PRODUCTION COMPANY

3a. Address Route 3 Box 3630  
Myton, UT 84052

3b. Phone (include are code)  
435.646.3721

4. Location of Well (Footage, Sec., T., R., M., or Survey Description)

SESE Section 12 T9S R16E

5. Lease Serial No.

USA UTU-035521

6. If Indian, Allottee or Tribe Name.

7. If Unit or CA/Agreement, Name and/or  
JONAH UNIT

8. Well Name and No. JONAH PED  
JONAH S-12-9-16

9. API Well No.  
4301334010

10. Field and Pool, or Exploratory Area  
MONUMENT BUTTE

11. County or Parish, State  
DUCHESNE, UT

**12. CHECK APPROPRIATE BOX(ES) TO INDICATE NATURE OF NOTICE, OR OTHER DATA**

TYPE OF SUBMISSION	TYPE OF ACTION			
<input type="checkbox"/> Notice of Intent	<input type="checkbox"/> Acidize	<input type="checkbox"/> Deepen	<input type="checkbox"/> Production (Start/Resume)	<input type="checkbox"/> Water Shut-Off
<input checked="" type="checkbox"/> Subsequent Report	<input type="checkbox"/> Alter Casing	<input type="checkbox"/> Fracture Treat	<input type="checkbox"/> Reclamation	<input type="checkbox"/> Well Integrity
<input type="checkbox"/> Final Abandonment	<input type="checkbox"/> Casing Repair	<input type="checkbox"/> New Construction	<input type="checkbox"/> Recomplete	<input checked="" type="checkbox"/> Other
	<input type="checkbox"/> Change Plans	<input type="checkbox"/> Plug & Abandon	<input type="checkbox"/> Temporarily Abandon	Weekly Status Report
	<input type="checkbox"/> Convert to Injector	<input type="checkbox"/> Plug Back	<input type="checkbox"/> Water Disposal	

13. Describe Proposed or Completed Operation: (Clearly state all pertinent details, including estimated starting date of any proposed work and approximate duration thereof. If the proposal is to deepen directionally or recompleat horizontally, give subsurface locations and measured and true vertical depths of all pertinent markers and zones. Attach the Bond under which the work will be performed or provide the Bond No. on file with BLM/BIA. Required subsequent reports shall be filed within 30 days following completion of the involved operations. If the operation results in a multiple completion or recompleat in a new interval, a Form 3160-4 shall be filed once testing has been completed. Final Abandonment Notices shall be filed only after all requirements, including reclamation, have been completed, and the operator has determined that the site is ready for final inspection.)

On 10/29/08 MIRU NDSI Rig # 2. Set all equipment. Pressure test Kelly, TIW, Choke manifold, & Bop's to 2,000 psi. Test 8.625 csgn to 1,500 psi. Vernal BLM field, & Roosevelt DOGM office was notified of test. PU BHA and tag cement @ 287'. Drill out cement & shoe. Drill a 7.875 hole with fresh water to a depth of 6077'. Lay down drill string & BHA. Open hole log w/ Dig/SP/GR log's TD to surface. PU & TIH with Guide shoe, shoe jt, float collar, 155 jt's of 5.5 J-55, 15.5# csgn. Set @ 6076.15' KB. Cement with 300 sks cement mixed @ 11.0 ppg & 3.43 yld. The 425 sks cement mixed @ 14.4 ppg & 1.24 yld. Returned 29 bbls of cement to reserve pit. Nipple down Bop's. Drop slips @ 100,000 #'s tension. Release rig @ 12:00 AM on 11/05/08.

I hereby certify that the foregoing is true and correct (Printed/ Typed)

Jim Smith

Signature

Title

Drilling Foreman

Date

11/05/2008

**THIS SPACE FOR FEDERAL OR STATE OFFICE USE**

Approved by

Conditions of approval, if any, are attached. Approval of this notice does not warrant or certify that the applicant holds legal or equitable title to those rights in the subject lease which would entitle the applicant to conduct operations thereon.

Title

Date

Office

Title 18 U.S.C. Section 1001 and Title 43 U.S.C. Section 1212, make it a crime for any person knowingly and willfully to make to any department or agency of the United States any false, fictitious and fraudulent statements or representations as to any matter within its jurisdiction

(Instructions on page 2)

**RECEIVED**

NOV 06 2008

DIV. OF OIL, GAS & MINING

**5 1/2" CASING SET @ 6076.15**

LAST CASING: 8-5/8" SET @ \_\_\_\_\_  
 DATUM (KB) 12  
 DATUM TO CUT OFF CASING 12  
 DATUM TO BRADENHEAD FLANGE 12  
 DRILLER TD 6077 LOGGER TD 6070  
 HOLE SIZE 7-7/8" TOP FLOAT COLLAR @ 6036.48  
 TOP SHORT JT @ 3992.01

OPERATOR: Newfield Production Company  
 WELL: Jonah Fed. S-12-9-16  
 FIELD/PROSPECT: Monument Butte  
 CONTRACTOR & RIG #: NDSI Rig # 2

**LOG OF CASING STRING:**

PIECES	OD	ITEM - MAKE - DESCRIPTION	WT / FT	GRD	THREAD	CONDT	LENGTH
1		Landing Jt	15.5#	J-55	8rd	A	14
154	5 1/2"	LT&C CASING	15.5#	J-55	8rd	A	6024.48
1	5 1/2"	FLOAT COLLAR	-	-	-	A	0.6
1	5 1/2"	LT&C CASING	15.5#	J-55	8rd	A	38.42
1	5 1/2"	GUIDE SHOE					0.65

CASING INVENTORY BAL.	FEET	JTS
TOTAL LENGTH OF STRING	6078.15	155
LESS NON CSG. ITEMS	15.25	-
PLUS FULL JTS. LEFT OUT	239.4	6
TOTAL	6302.3	161
TOTAL CSG. DEL. (W/O THRDS)	6302.30	161

TOTAL LENGTH OF STRING	6078.15
(-) LANDING JT	14
(-) AMOUNT CUTOFF	0
(+) KB ELEVATION	12
CASING SET DEPTH	<b>6076.15</b>

COMPARE (SHOULD BE EQUAL)

CEMENT DATA		TIME	DATE
BEGIN RUN CSG.		11:30 AM	11/4/2008
CSG. IN HOLE		3:00 PM	11/4/2008
BEGIN CIRC		3:15 PM	11/4/2008
BEGIN PUMP CMT		5:20 PM	11/4/2008
BEGIN DSPL. CMT		6:15 PM	11/4/2008
PLUG DOWN		6:33 PM	11/4/2008

GOOD CIRC THRU JOB: y  
 Bbls CMT CIRC TO SURFACE: 24  
 RECIPROCATED PIPE: No  
 DID BACK PRES. VALVE HOLD ? y  
 BUMPED PLUG TO: 2190 PSI

**CEMENT USED**

CEMENT COMPANY:		BJ	
STAGE	# SX	CEMENT TYPE & ADDITIVES	
1 (lead)	300	Premium Lite II cement + 0.05 lbs/sack Static Free + 3% bwow Potassium Chloride + 0.5 lbs/sack Cello	
		Flake + 2 lbs/sack Kol Seal + 0.002 gps FP-6L + 10% bwoc Bentonite + 0.5% bwoc Sodium Metasilicate	
		+ 5 lbs/sack CSE-2 + 204.7% Fresh Water	
2 (tail)	425	(50:50) Poz (Fly Ash): Class G Cement + 0.05 lbs/sack Static Free + 3% bwow Potassium Chloride + 0.5%	
		bwoc EC-1 + 0.25 lbs/sack Cello Flake + 0.002 gps FP-6L + 2% bwoc Bentonite + 0.3% bwoc Sodium	
		Metasilicate + 54.7% Fresh Water	

**CENTRALIZER & SCRATCHER PLACEMENT (SHOW MAKE & SPACING)**

Centralizers - Middle first, top second & third. Then every third collar for a total of 20.

COMPANY REPRESENTATIVE Ryan Crum

DATE 11/3/2008

UNITED STATES  
DEPARTMENT OF THE INTERIOR  
BUREAU OF LAND MANAGEMENT

**SUNDRY NOTICES AND REPORTS ON WELLS**  
**Do not use this form for proposals to drill or to re-enter an abandoned well. Use Form 3160-3 (APD) for such proposals.**

**SUBMIT IN TRIPLICATE - Other Instructions on page 2**

1. Type of Well

☒ Oil Well ☐ Gas Well ☐ Other

2. Name of Operator

NEWFIELD PRODUCTION COMPANY

3a. Address Route 3 Box 3630

Myton, UT 84052

3b. Phone (include are code)

435.646.3721

4. Location of Well (Footage, Sec., T., R., M., or Survey Description)

SESE Section 12 T9S R16E

FORM APPROVED  
OMB No. 1004-0137  
Expires: July 31, 2010

5. Lease Serial No.

USA UTU-035521

6. If Indian, Allottee or Tribe Name.

7. If Unit or CA/Agreement, Name and/or

JONAH UNIT

8. Well Name and No.

JONAH S-12-9-16

9. API Well No.

4301334010

10. Field and Pool, or Exploratory Area

MONUMENT BUTTE

11. County or Parish, State

DUCHESNE, UT

**12. CHECK APPROPRIATE BOX(ES) TO INDICATE NATURE OF NOTICE, OR OTHER DATA**

TYPE OF SUBMISSION	TYPE OF ACTION			
<input type="checkbox"/> Notice of Intent	<input type="checkbox"/> Acidize	<input type="checkbox"/> Deepen	<input type="checkbox"/> Production (Start/Resume)	<input type="checkbox"/> Water Shut-Off
<input checked="" type="checkbox"/> Subsequent Report	<input type="checkbox"/> Alter Casing	<input type="checkbox"/> Fracture Treat	<input type="checkbox"/> Reclamation	<input type="checkbox"/> Well Integrity
<input type="checkbox"/> Final Abandonment	<input type="checkbox"/> Casing Repair	<input type="checkbox"/> New Construction	<input type="checkbox"/> Recomplete	<input checked="" type="checkbox"/> Other _____
	<input type="checkbox"/> Change Plans	<input type="checkbox"/> Plug & Abandon	<input type="checkbox"/> Temporarily Abandon	Spud Notice _____
	<input type="checkbox"/> Convert to Injector	<input type="checkbox"/> Plug Back	<input type="checkbox"/> Water Disposal	_____

13. Describe Proposed or Completed Operation: (Clearly state all pertinent details, including estimated starting date of any proposed work and approximate duration thereof. If the proposal is to deepen directionally or recompleat horizontally, give subsurface locations and measured and true vertical depths of all pertinent markers and zones. Attach the Bond under which the work will be performed or provide the Bond No. on file with BLM/BIA. Required subsequent reports shall be filed within 30 days following completion of the involved operations. If the operation results in a multiple completion or recompleat in a new interval, a Form 3160-4 shall be filed once testing has been completed. Final Abandonment Notices shall be filed only after all requirements, including reclamation, have been completed, and the operator has determined that the site is ready for final inspection.)

On 10/15/08 MIRU Ross Rig # 24. Spud well @ 3:00 PM. Drill 320' of 12 1/4" hole with air mist. TIH W/ 7 Jt's 8 5/8" J-55 24 # csgn. Set @ 326.09 KB On 10/24/08 cement with 160 sks of class "G" w/ 2% CaCL2 + 1/4# sk Cello- Flake Mixed @ 15.8 ppg > 1.17 cf/ sk yeild. Returned 7 bbls cement to pit. WOC.

I hereby certify that the foregoing is true and correct (Printed/ Typed)

Alvin Nielsen

Signature



Title

Drilling Foreman

Date

01/05/2009

**THIS SPACE FOR FEDERAL OR STATE OFFICE USE**

Approved by

Conditions of approval, if any, are attached. Approval of this notice does not warrant or certify that the applicant holds legal or equitable title to those rights in the subject lease which would entitle the applicant to conduct operations thereon.

Title

Date

Office

Title 18 U.S.C. Section 1001 and Title 43 U.S.C. Section 1212, make it a crime for any person knowingly and willfully to make to any department or agency of the United States any false, fictitious and fraudulent statements or representations as to any matter within its jurisdiction

(Instructions on page 2)

**RECEIVED**

**JAN 12 2009**

**DIV. OF OIL, GAS & MINING**

# NEWFIELD PRODUCTION COMPANY - CASING & CEMENT REPORT

8 5/8" CASING SET AT 326.09

LAST CASING 314.24 SET AT 326.09  
 DATUM \_\_\_\_\_  
 DATUM TO CUT OFF CASING 2  
 DATUM TO BRADENHEAD FLANGE 12  
 TD DRILLER 320 LOGGER \_\_\_\_\_  
 HOLE SIZE 12 1/4

OPERATOR Newfield Exploration Company  
 WELL JONAH S-12-9-16  
 FIELD/PROSPECT Mon. Butte  
 CONTRACTOR & RIG # Ross Rig # 24

## LOG OF CASING STRING:

PIECES	OD	ITEM - MAKE - DESCRIPTION	WT / FT	GRD	THREAD	CONDT	LENGTH
7	8 5/8	Casing ( Shoe 38.17 )	24	J-55	8rd	A	314.24
1		Well head					0.95
1		8 5/8" Guide shoe					0.9
CASING INVENTORY BAL.		FEET	JTS	TOTAL LENGTH OF STRING			316.09
TOTAL LENGTH OF STRING		316.09	7	LESS CUT OFF PIECE			2
LESS NON CSG. ITEMS				PLUS DATUM TO T/CUT OFF CSG			12
PLUS FULL JTS. LEFT OUT		0		CASING SET DEPTH			<b>326.09</b>
TOTAL		316.09	7	} COMPARE			
TOTAL CSG. DEL. (W/O THRDS)		316.09	7				
TIMING							
BEGIN RUN CSG.	Spud		10/15/2008	GOOD CIRC THRU JOB <u>Yes</u>			
CSG. IN HOLE	12:00 PM		10/16/2008	Bbls CMT CIRC TO SURFACE <u>7</u>			
BEGIN CIRC	7:16 AM		10/24/2008	RECIPROCATED PIPE <u>No</u>			
BEGIN PUMP CMT	7:25 AM		10/24/2008	BUMPED PLUG TO <u>138</u>			
BEGIN DSPL. CMT	7:37 AM		10/24/2008				
PLUG DOWN	7:40 AM		10/24/2008				

[illegible]

COMPANY REPRESENTATIVE

DATE **10/24/2008**

RECEIVED

UNITED STATES  
DEPARTMENT OF THE INTERIOR  
BUREAU OF LAND MANAGEMENT

JAN 12 2009

DIV. OF OIL, GAS &amp; MINING

## WELL COMPLETION OR RECOMPLETION REPORT AND LOG

FORM APPROVED  
OMB NO. 1004-0137  
Expires: July 31, 2010

1a. Type of Well <input checked="" type="checkbox"/> Oil Well <input type="checkbox"/> Gas Well <input type="checkbox"/> Dry <input type="checkbox"/> Other		5. Lease Serial No. UTU-035521							
b. Type of Completion: <input checked="" type="checkbox"/> New Well <input type="checkbox"/> Work Over <input type="checkbox"/> Deepen <input type="checkbox"/> Plug Back <input type="checkbox"/> Diff. Resvr., Other: _____		6. If Indian, Allottee or Tribe Name NA							
2. Name of Operator NEWFIELD EXPLORATION COMPANY		7. Unit or CA Agreement Name and No. FEDERAL							
3. Address 1401 17TH ST. SUITE 1000 DENVER, CO 80202		8. Lease Name and Well No. JONAH FEDERAL S-12-9-16							
3a. Phone No. (include area code) (435)646-3721		9. AFI Well No. 43-013-34010							
4. Location of Well (Report location clearly and in accordance with Federal requirements)* At surface SL: 880' FSL & 842' FEL (SE/SE) SEC. 12, T9S, R16E At top prod. interval reported below BHL: 1265' FSL & 1605' FEL (SW/SE) At total depth 6077' 1299' FSL 1710' FEL SW/SE S-12 T09S R16E		10. Field and Pool or Exploratory MONUMENT BUTTE							
14. Date Spudded 10/15/2008		11. Sec., T., R., M., on Block and Survey or Area SEC. 12, T9S, R16E							
15. Date T.D. Reached 11/04/2008		12. County or Parish DUCHESNE							
16. Date Completed 11/21/2008 <input type="checkbox"/> D & A <input checked="" type="checkbox"/> Ready to Prod.		13. State UT							
17. Elevations (DF, RKB, RT, GL)* 5426' GL 5438' KB									
18. Total Depth: MD 6077' 6082' TVD 5955' 5990'		19. Plug Back T.D.: MD 6036' TVD 5944'							
20. Depth Bridge Plug Set: MD TVD		21. Type Electric & Other Mechanical Logs Run (Submit copy of each) DUAL IND GRD, SP, COMP. DENSITY, COMP. NEUTRON, GR, CALIPER, CMT BOND							
22. Was well cored? <input checked="" type="checkbox"/> No <input type="checkbox"/> Yes (Submit analysis) Was DST run? <input checked="" type="checkbox"/> No <input type="checkbox"/> Yes (Submit report) Directional Survey? <input type="checkbox"/> No <input checked="" type="checkbox"/> Yes (Submit copy)									
23. Casing and Liner Record (Report all strings set in well)									
Hole Size	Size/Grade	Wt. (#/ft.)	Top (MD)	Bottom (MD)	Stage Cementer Depth	No. of Sk. & Type of Cement	Slurry Vol. (BBL)	Cement Top*	Amount Pulled
12-1/4"	8-5/8" J-55	24#		326'		160 CLASS G			
7-7/8"	5-1/2" J-55	15.5#		6076'		350 PRIMLITE		54'	
						475 50/50 POZ			
24. Tubing Record									
Size	Depth Set (MD)	Packer Depth (MD)	Size	Depth Set (MD)	Packer Depth (MD)	Size	Depth Set (MD)	Packer Depth (MD)	
2-7/8"	EOT @ 5021'	TA @ 4923'							
25. Producing Intervals									
Formation	Top	Bottom	Perforated Interval	Size	No. Holes	Perf. Status			
A) GREEN RIVER			(B2) 4946-54'	.49"	4	32			
B) GREEN RIVER			(C) 4802-4818'	.49"	4	64			
C) GREEN RIVER			(D1) 4630-4650'	.49"	4	80			
D) GREEN RIVER			(PB10) 4358-4368'	.49"	4	40			
27. Acid, Fracture, Treatment, Cement Squeeze, etc.									
Depth Interval	Amount and Type of Material								
4946-4954'	Frac w/ 34213 # of 20/40 snd 375 bbls fluid								
4802-4818'	Frac w/ 55806 # of 20/40 snd 485 bbls fluid								
4630-4650'	Frac w/ 29466# 20/40 snd 403 bbls fluid								
4358-4368'	Frac w/ 443513 # 20/40 snd 504 bbls fluid								
28. Production - Interval A									
Date First Produced	Test Date	Hours Tested	Test Production	Oil BBL	Gas MCF	Water BBL	Oil Gravity Corr. API	Gas Gravity	Production Method
11/21/08	12/07/08	24	→	43	35	40			2-1/2" x 1-3/4" x 20' RHAC Pump
Choke Size	Tbg. Press. Flwg. SI	Csg. Press.	24 Hr. Rate	Oil BBL	Gas MCF	Water BBL	Gas/Oil Ratio	Well Status	
			→					PRODUCING	
28a. Production - Interval B									
Date First Produced	Test Date	Hours Tested	Test Production	Oil BBL	Gas MCF	Water BBL	Oil Gravity Corr. API	Gas Gravity	Production Method
			→						
Choke Size	Tbg. Press. Flwg. SI	Csg. Press.	24 Hr. Rate	Oil BBL	Gas MCF	Water BBL	Gas/Oil Ratio	Well Status	
			→						

\*(See instructions and spaces for additional data on page 2)



## 28b. Production - Interval C

Date First Produced	Test Date	Hours Tested	Test Production	Oil BBL	Gas MCF	Water BBL	Oil Gravity Corr. API	Gas Gravity	Production Method
			→						
Choke Size	Tbg. Press. Flwg. SI	Csg. Press.	24 Hr. Rate	Oil BBL	Gas MCF	Water BBL	Gas/Oil Ratio	Well Status	
			→						

## 28c. Production - Interval D

Date First Produced	Test Date	Hours Tested	Test Production	Oil BBL	Gas MCF	Water BBL	Oil Gravity Corr. API	Gas Gravity	Production Method
			→						
Choke Size	Tbg. Press. Flwg. SI	Csg. Press.	24 Hr. Rate	Oil BBL	Gas MCF	Water BBL	Gas/Oil Ratio	Well Status	
			→						

29. Disposition of Gas (Solid, used for fuel, vented, etc.)

USED FOR FUEL

## 30. Summary of Porous Zones (Include Aquifers):

Show all important zones of porosity and contents thereof: Cored intervals and all drill-stem tests, including depth interval tested, cushion used, time tool open, flowing and shut-in pressures and recoveries.

## 31. Formation (Log) Markers

## GEOLOGICAL MARKERS

Formation	Top	Bottom	Descriptions, Contents, etc.	Name	Top
					Meas. Depth
				GARDEN GULCH MRK GARDEN GULCH 1	3590' 3798'
				GARDEN GULCH 2 POINT 3	3924' 4149'
				X MRKR Y MRKR	4450' 4486'
				DOUGALS CREEK MRK BI CARBONATE MRK	4609' 4858'
				B LIMESTON MRK CASTLE PEAK	4979' 5456'
				BASAL CARBONATE WASTACH	5904' 6030'
				TOTAL DEPTH (LOGGERS)	6070'

32. Additional remarks (include plugging procedure):

(GB6)4172-4178' .49" 4/24 4712-4178 Frac w/ 30097#'s of 20/40 sand in 359 bbls of fluid

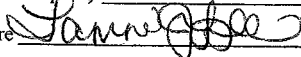
33. Indicate which items have been attached by placing a check in the appropriate boxes:

- ☐ Electrical/Mechanical Logs (1 full set req'd.)     
 ☐ Geologic Report     
 ☐ DST Report     
 ☒ Directional Survey  
☐ Sundry Notice for plugging and cement verification     
 ☐ Core Analysis     
 ☐ Other:

34. I hereby certify that the foregoing and attached information is complete and correct as determined from all available records (see attached instructions)\*

Name (please print) Tammi LeeTitle Production Clerk

Signature

Date 01/02/2009

Title 18 U.S.C. Section 1001 and Title 43 U.S.C. Section 1212, make it a crime for any person knowingly and willfully to make to any department or agency of the United States any false, fictitious or fraudulent statements or representations as to any matter within its jurisdiction.

(Continued on page 3)

(Form 3160-4, page 2)



**Scientific  
Drilling**

## **Directional Survey Certification**

7327 West Barton Road

Casper, WY 82604

(307)-472-6621 Fax (307) 472-5439

<b>Operator</b>	<u>Newfield Exploration Co.</u>
<b>Well Name &amp; No.</b>	<u>Jonah Unit S-12-9-16</u>
<b>County &amp; State</b>	<u>Duchesne County, UT</u>
<b>SDI Job No.</b>	<u>42DEF0810911</u>
<b>Rig</b>	<u>NDSI 2</u>

I, Julie Cruse, having personal knowledge of all the facts, hereby  
certify that the attached directional survey run from a measured depth of 0 feet to a  
measured depth of 6082 feet is true and correct as determined from all available records.

Julie Cruse  
Signature

5-Nov-08  
Date

**Julie Cruse**  
Rockies Region Engineer  
Scientific Drilling - Rocky Mountain District



Scientific Drilling  
Rocky Mountain Operations

Project: Duchesne County, UT NAD83 UTC

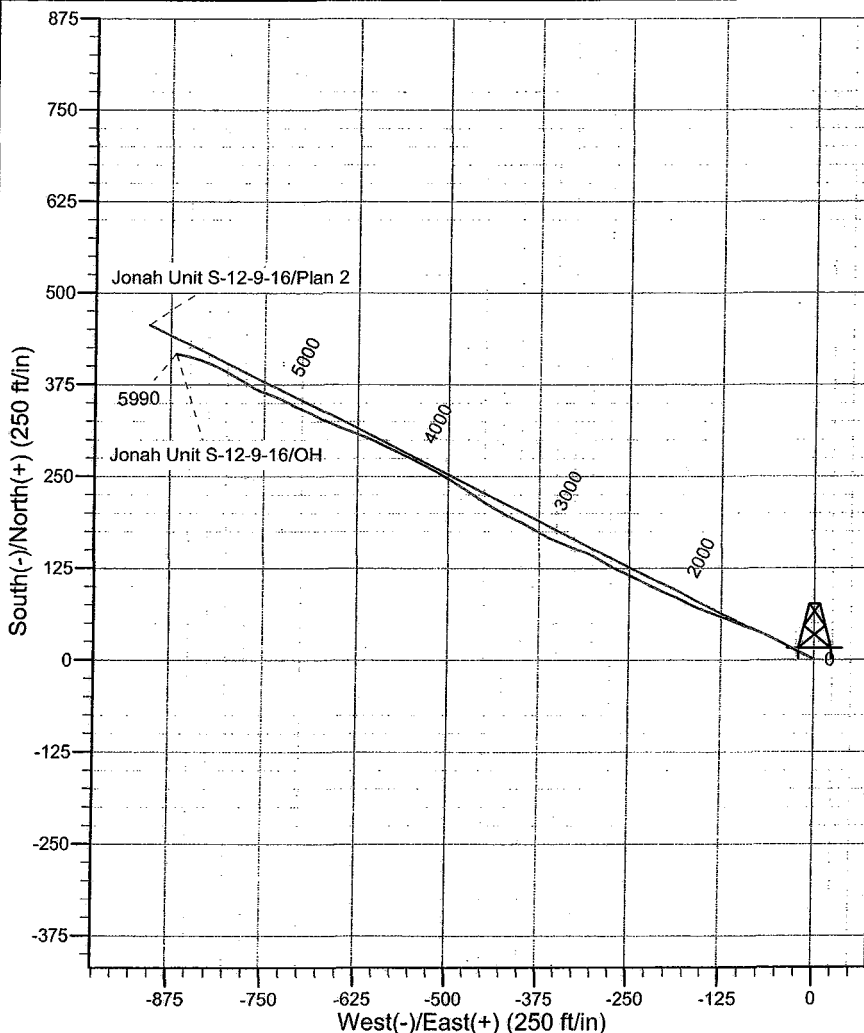
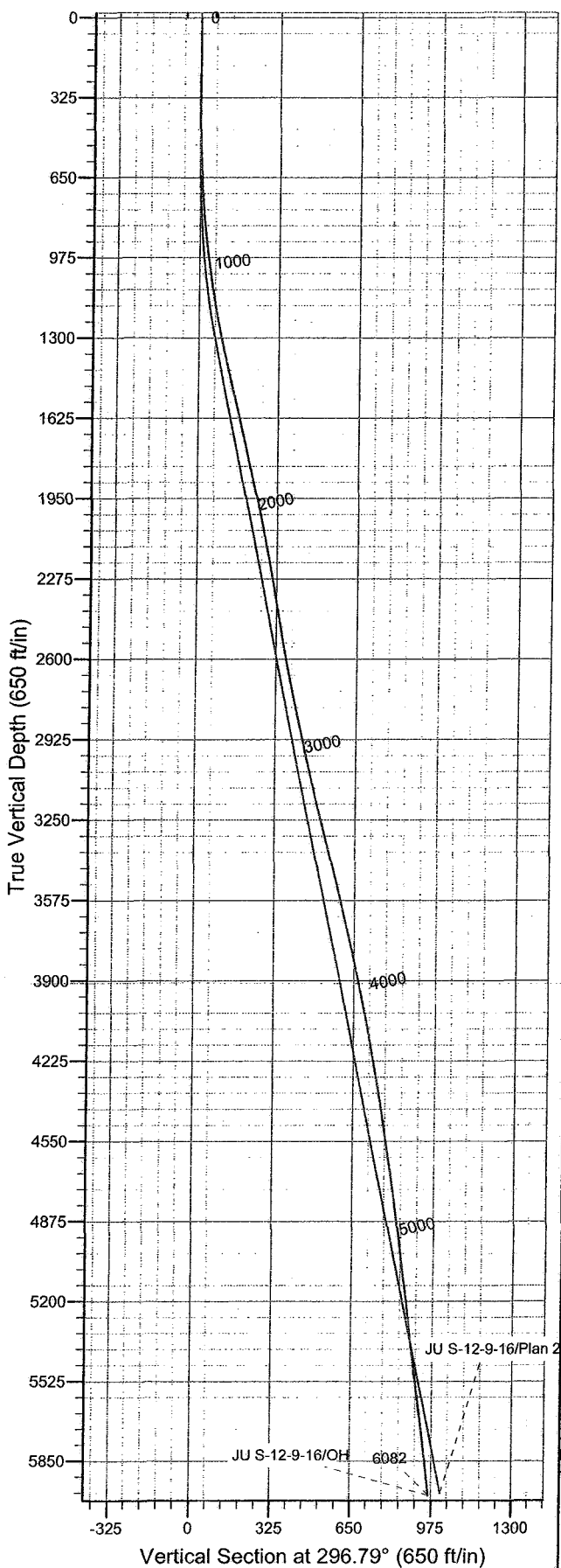
Site: Jonah Unit

Well: Jonah Unit S-12-9-16

Wellbore: OH

Design: OH

Newfield Exploration Co.



#### WELL DETAILS: Jonah Unit S-12-9-16

Ground Level: GL 5426' & RKB 12' @ 5438.00ft (NDSI 2)  
\*N/-S \*E/-W Northing Easting Latitude Longitude  
0.00 0.00 7186732.45 2043182.68 40° 2' 25.830 N 110° 3' 40.870 W

#### REFERENCE INFORMATION

Co-ordinate (N/E) Reference: Well Jonah Unit S-12-9-16, True North  
Vertical (TVD) Reference: GL 5426' & RKB 12' @ 5438.00ft (NDSI 2)  
Section (VS) Reference: Slot - (0.00N, 0.00E)  
Measured Depth Reference: GL 5426' & RKB 12' @ 5438.00ft (NDSI 2)  
Calculation Method: Minimum Curvature  
Local North: True  
Location: Sec 5 T9S R17E

#### PROJECT DETAILS: Duchesne County, UT NAD83 UTC

Geodetic System: US State Plane 1983  
Datum: North American Datum 1983  
Ellipsoid: GRS 1980  
Zone: Utah Central Zone

Design: OH (Jonah Unit S-12-9-16/OH)

Created By: Gregg Detweiler Date: 2008-11-4



**Scientific Drilling**  
Rocky Mountain Operations

## **Newfield Exploration Co.**

Duchesne County, UT NAD83 UTC

Jonah Unit

Jonah Unit S-12-9-16

OH

Design: OH

## **Standard Survey Report**

04 November, 2008



# Scientific Drilling

## Survey Report

**Company:** Newfield Exploration Co.  
**Project:** Duchesne County, UT NAD83 UTC  
**Site:** Jonah Unit  
**Well:** Jonah Unit S-12-9-16  
**Wellbore:** OH  
**Design:** OH

**Local Co-ordinate Reference:** Well Jonah Unit S-12-9-16  
**TVD Reference:** GL 5426' & RKB 12' @ 5438.00ft (NDSI 2)  
**MD Reference:** GL 5426' & RKB 12' @ 5438.00ft (NDSI 2)  
**North Reference:** True  
**Survey Calculation Method:** Minimum Curvature  
**Database:** EDM 2003.16 Multi User DB

<b>Project</b>	Duchesne County, UT NAD83 UTC		
<b>Map System:</b>	US State Plane 1983	<b>System Datum:</b>	Mean Sea Level
<b>Geo Datum:</b>	North American Datum 1983		
<b>Map Zone:</b>	Utah Central Zone		

Site		Jonah Unit, Sec 5 T9S R17E			
Site Position:		Northing:	7,195,384.71 ft	Latitude:	40° 3' 51.060 N
From:	Lat/Long	Easting:	2,044,880.81 ft	Longitude:	110° 3' 17.240 W
Position Uncertainty:	0.00 ft	Slot Radius:	in	Grid Convergence:	0.93 °

Well	Jonah Unit S-12-9-16, 880' FSL 842' FEL Sec 12 T9S R16E					
Well Position	+N/-S	0.00 ft	Northing:	7,186,732.45 ft	Latitude:	40° 2' 25.830 N
	+E/-W	0.00 ft	Easting:	2,043,182.68 ft	Longitude:	110° 3' 40.870 W
Position Uncertainty		0.00 ft	Wellhead Elevation:	ft	Ground Level:	5,426.00 ft

<b>Wellbore</b>	OH				
<b>Magnetics</b>	<b>Model Name</b>	<b>Sample Date</b>	<b>Declination (°)</b>	<b>Dip Angle (°)</b>	<b>Field Strength (nT)</b>
	IGRF2005-10	10/20/2008	11.64	65.87	52,557

<b>Design</b>	OH				
<b>Audit Notes:</b>					
<b>Version:</b>	1.0	<b>Phase:</b>	ACTUAL	<b>Tie On Depth:</b>	0.00
<b>Vertical Section:</b>	<b>Depth From (TVD) (ft)</b>	<b>+N/-S (ft)</b>	<b>+E/-W (ft)</b>	<b>Direction (°)</b>	
	0.00	0.00	0.00	296.79	

<b>Survey Program</b>	Date 11/4/2008				
<b>From (ft)</b>	<b>To (ft)</b>	<b>Survey (Wellbore)</b>	<b>Tool Name</b>	<b>Description</b>	
353.00	6,082.00	Survey #1 (OH)	MWD	MWD - Standard	

Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Vertical Section (ft)	Dogleg Rate (°/100ft)	Build Rate (°/100ft)	Turn Rate (°/100ft)
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
353.00	0.20	102.94	353.00	-0.14	0.60	-0.60	0.06	0.06	0.00
<b>First MWD Survey</b>									
384.00	0.20	101.65	384.00	-0.16	0.71	-0.70	0.01	0.00	-4.16
414.00	0.07	252.07	414.00	-0.18	0.74	-0.74	0.88	-0.43	501.40
445.00	0.45	316.70	445.00	-0.09	0.64	-0.61	1.37	1.23	208.48
476.00	0.96	308.22	476.00	0.15	0.35	-0.24	1.67	1.65	-27.35
507.00	1.16	306.87	506.99	0.50	-0.10	0.32	0.65	0.65	-4.35
537.00	1.69	302.00	536.98	0.92	-0.72	1.06	1.81	1.77	-16.23
568.00	2.02	294.84	567.97	1.39	-1.61	2.06	1.30	1.06	-23.10
599.00	2.56	292.98	598.94	1.89	-2.74	3.30	1.76	1.74	-6.00
629.00	2.92	293.82	628.91	2.46	-4.05	4.73	1.21	1.20	2.80
660.00	3.51	294.99	659.86	3.18	-5.64	6.47	1.91	1.90	3.77



# Scientific Drilling

## Survey Report

**Company:** Newfield Exploration Co.  
**Project:** Duchesne County, UT NAD83 UTC  
**Site:** Jonah Unit  
**Well:** Jonah Unit S-12-9-16  
**Wellbore:** OH  
**Design:** OH

**Local Co-ordinate Reference:** Well Jonah Unit S-12-9-16  
**TVD Reference:** GL 5426' & RKB 12' @ 5438.00ft (NDSI 2)  
**MD Reference:** GL 5426' & RKB 12' @ 5438.00ft (NDSI 2)  
**North Reference:** True  
**Survey Calculation Method:** Minimum Curvature  
**Database:** EDM 2003.16 Multi User DB

### Survey

Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Vertical Section (ft)	Dogleg Rate (°/100ft)	Build Rate (°/100ft)	Turn Rate (°/100ft)
691.00	3.81	292.04	690.79	3.97	-7.45	8.44	1.14	0.97	-9.52
721.00	4.28	292.58	720.72	4.77	-9.41	10.55	1.57	1.57	1.80
752.00	4.65	290.64	751.63	5.66	-11.65	12.95	1.29	1.19	-6.26
783.00	5.11	293.04	782.51	6.64	-14.10	15.58	1.62	1.48	7.74
814.00	5.40	293.97	813.38	7.78	-16.70	18.42	0.97	0.94	3.00
845.00	5.66	297.07	844.24	9.06	-19.40	21.40	1.28	0.84	10.00
877.00	6.13	297.60	876.07	10.57	-22.32	24.69	1.48	1.47	1.66
909.00	6.60	298.31	907.87	12.24	-25.45	28.23	1.49	1.47	2.22
941.00	7.09	299.80	939.64	14.09	-28.78	32.04	1.63	1.53	4.66
972.00	7.51	297.39	970.39	15.97	-32.24	35.98	1.68	1.35	-7.77
1,004.00	7.90	299.13	1,002.10	18.01	-36.02	40.27	1.42	1.22	5.44
1,036.00	8.22	299.41	1,033.79	20.20	-39.93	44.75	1.01	1.00	0.87
1,067.00	8.63	297.75	1,064.45	22.37	-43.92	49.29	1.54	1.32	-5.35
1,099.00	8.84	297.86	1,096.08	24.64	-48.22	54.15	0.66	0.66	0.34
1,131.00	9.22	296.79	1,127.68	26.94	-52.68	59.17	1.30	1.19	-3.34
1,162.00	9.91	297.87	1,158.25	29.31	-57.26	64.32	2.30	2.23	3.48
1,194.00	10.49	296.39	1,189.75	31.89	-62.30	69.99	1.99	1.81	-4.62
1,226.00	10.69	294.31	1,221.20	34.41	-67.62	75.87	1.35	0.62	-6.50
1,258.00	11.20	294.17	1,252.62	36.90	-73.16	81.94	1.60	1.59	-0.44
1,289.00	11.43	294.37	1,283.02	39.40	-78.70	88.01	0.75	0.74	0.65
1,321.00	11.81	291.21	1,314.36	41.90	-84.64	94.44	2.32	1.19	-9.87
1,353.00	12.35	292.60	1,345.65	44.40	-90.85	101.11	1.92	1.69	4.34
1,385.00	12.79	291.32	1,376.89	47.00	-97.31	108.05	1.63	1.37	-4.00
1,416.00	13.24	292.53	1,407.09	49.61	-103.79	115.01	1.70	1.45	3.90
1,448.00	13.58	293.04	1,438.22	52.48	-110.63	122.41	1.12	1.06	1.59
1,480.00	13.77	291.35	1,469.31	55.34	-117.63	129.95	1.38	0.59	-5.28
1,511.00	13.75	291.26	1,499.42	58.02	-124.50	137.29	0.09	-0.06	-0.29
1,543.00	13.34	291.23	1,530.53	60.73	-131.49	144.75	1.28	-1.28	-0.09
1,575.00	13.15	290.72	1,561.68	63.36	-138.34	152.04	0.70	-0.59	-1.59
1,607.00	13.05	288.96	1,592.85	65.82	-145.16	159.24	1.29	-0.31	-5.50
1,638.00	13.16	291.54	1,623.04	68.25	-151.75	166.22	1.92	0.35	8.32
1,670.00	13.14	292.88	1,654.20	71.00	-158.49	173.48	0.95	-0.06	4.19
1,702.00	12.80	293.54	1,685.38	73.83	-165.09	180.65	1.16	-1.06	2.06
1,733.00	12.80	297.07	1,715.61	76.77	-171.30	187.51	2.52	0.00	11.39
1,765.00	12.73	296.26	1,746.82	79.94	-177.61	194.58	0.60	-0.22	-2.53
1,797.00	12.96	294.74	1,778.02	83.00	-184.04	201.69	1.28	0.72	-4.75
1,829.00	12.94	292.96	1,809.21	85.90	-190.59	208.85	1.25	-0.06	-5.56
1,860.00	13.02	293.01	1,839.42	88.62	-197.00	215.80	0.26	0.26	0.16
1,892.00	13.21	295.54	1,870.58	91.61	-203.62	223.05	1.89	0.59	7.91
1,924.00	13.06	296.68	1,901.75	94.81	-210.15	230.32	0.94	-0.47	3.56
1,955.00	12.41	298.07	1,931.98	97.95	-216.22	237.16	2.32	-2.10	4.48
1,987.00	12.14	296.79	1,963.25	101.08	-222.26	243.96	1.20	-0.84	-4.00
2,019.00	11.99	298.08	1,994.54	104.16	-228.19	250.65	0.96	-0.47	4.03
2,051.00	11.91	298.13	2,025.85	107.28	-234.04	257.27	0.25	-0.25	0.16
2,082.00	11.80	296.75	2,056.19	110.22	-239.69	263.64	0.98	-0.35	-4.45
2,114.00	11.44	295.10	2,087.53	113.04	-245.48	270.08	1.53	-1.12	-5.16
2,146.00	11.63	295.67	2,118.89	115.78	-251.27	276.48	0.69	0.59	1.78
2,177.00	11.76	295.15	2,149.24	118.48	-256.94	282.76	0.54	0.42	-1.68
2,209.00	11.82	294.16	2,180.57	121.20	-262.88	289.30	0.66	0.19	-3.09
2,241.00	11.37	296.09	2,211.92	123.93	-268.71	295.72	1.86	-1.41	6.03
2,273.00	10.73	298.01	2,243.32	126.72	-274.17	301.86	2.31	-2.00	6.00
2,304.00	10.41	299.42	2,273.80	129.45	-279.16	307.54	1.33	-1.03	4.55
2,336.00	10.33	302.75	2,305.27	132.42	-284.09	313.28	1.89	-0.25	10.41
2,368.00	9.69	301.37	2,336.79	135.38	-288.80	318.82	2.14	-2.00	-4.31



# Scientific Drilling

## Survey Report

**Company:** Newfield Exploration Co.  
**Project:** Duchesne County, UT NAD83 UTC  
**Site:** Jonah Unit  
**Well:** Jonah Unit S-12-9-16  
**Wellbore:** OH  
**Design:** OH

**Local Co-ordinate Reference:** Well Jonah Unit S-12-9-16  
**TVD Reference:** GL 5426' & RKB 12' @ 5438.00ft (NDSI 2)  
**MD Reference:** GL 5426' & RKB 12' @ 5438.00ft (NDSI 2)  
**North Reference:** True  
**Survey Calculation Method:** Minimum Curvature  
**Database:** EDM 2003.16 Multi User DB

### Survey

Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Vertical Section (ft)	Dogleg Rate (°/100ft)	Build Rate (°/100ft)	Turn Rate (°/100ft)
2,400.00	9.60	300.37	2,368.33	138.13	-293.40	324.17	0.59	-0.28	-3.12
2,431.00	9.80	297.42	2,398.89	140.65	-297.97	329.38	1.73	0.65	-9.52
2,463.00	9.93	295.16	2,430.42	143.08	-302.89	334.87	1.28	0.41	-7.06
2,494.00	9.86	291.10	2,460.96	145.17	-307.78	340.18	2.26	-0.23	-13.10
2,526.00	10.36	290.10	2,492.46	147.14	-313.04	345.76	1.66	1.56	-3.12
2,558.00	10.03	288.92	2,523.96	149.04	-318.38	351.38	1.22	-1.03	-3.69
2,590.00	10.04	291.93	2,555.47	150.98	-323.60	356.92	1.64	0.03	9.41
2,621.00	10.01	292.82	2,585.99	153.03	-328.59	362.30	0.51	-0.10	2.87
2,653.00	10.80	292.66	2,617.47	155.27	-333.93	368.07	2.47	2.47	-0.50
2,685.00	11.43	294.01	2,648.87	157.71	-339.59	374.22	2.13	1.97	4.22
2,717.00	11.62	291.16	2,680.22	160.17	-345.49	380.60	1.88	0.59	-8.91
2,748.00	12.01	291.07	2,710.56	162.45	-351.41	386.91	1.26	1.26	-0.29
2,780.00	12.18	293.99	2,741.85	165.02	-357.60	393.60	1.98	0.53	9.12
2,812.00	12.69	296.58	2,773.10	167.97	-363.83	400.48	2.36	1.59	8.09
2,843.00	12.62	299.32	2,803.35	171.15	-369.83	407.27	1.95	-0.23	8.84
2,875.00	12.95	299.54	2,834.56	174.63	-375.99	414.35	1.04	1.03	0.69
2,907.00	13.25	299.72	2,865.73	178.22	-382.30	421.59	0.95	0.94	0.56
2,939.00	13.23	299.47	2,896.87	181.84	-388.67	428.91	0.19	-0.06	-0.78
2,970.00	12.64	297.42	2,927.09	185.14	-394.77	435.85	2.41	-1.90	-6.61
3,002.00	11.94	295.37	2,958.35	188.17	-400.87	442.66	2.58	-2.19	-6.41
3,034.00	11.96	294.09	2,989.66	190.95	-406.89	449.28	0.83	0.06	-4.00
3,066.00	12.56	295.61	3,020.93	193.80	-413.05	456.07	2.13	1.87	4.75
3,097.00	13.00	297.91	3,051.16	196.89	-419.17	462.92	2.17	1.42	7.42
3,129.00	13.05	298.55	3,082.34	200.30	-425.53	470.13	0.48	0.16	2.00
3,161.00	13.43	299.62	3,113.49	203.87	-431.93	477.46	1.41	1.19	3.34
3,192.00	13.09	300.38	3,143.66	207.42	-438.09	484.56	1.23	-1.10	2.45
3,224.00	13.16	300.49	3,174.83	211.10	-444.35	491.81	0.23	0.22	0.34
3,256.00	13.57	302.02	3,205.96	214.94	-450.68	499.18	1.69	1.28	4.78
3,288.00	14.32	303.78	3,237.02	219.13	-457.15	506.85	2.69	2.34	5.50
3,319.00	14.57	304.72	3,267.04	223.48	-463.54	514.52	1.11	0.81	3.03
3,351.00	14.23	303.14	3,298.03	227.93	-470.14	522.41	1.62	-1.06	-4.94
3,383.00	13.85	302.08	3,329.08	232.11	-476.68	530.13	1.43	-1.19	-3.31
3,415.00	13.95	301.36	3,360.14	236.15	-483.22	537.79	0.62	0.31	-2.25
3,446.00	14.28	301.19	3,390.20	240.08	-489.68	545.33	1.07	1.06	-0.55
3,478.00	14.51	301.61	3,421.20	244.22	-496.47	553.26	0.79	0.72	1.31
3,510.00	14.13	300.30	3,452.20	248.29	-503.26	561.15	1.56	-1.19	-4.09
3,541.00	14.08	299.96	3,482.27	252.09	-509.79	568.69	0.31	-0.16	-1.10
3,573.00	13.87	300.69	3,513.32	255.99	-516.46	576.41	0.86	-0.66	2.28
3,605.00	13.22	298.65	3,544.43	259.70	-522.97	583.89	2.52	-2.03	-6.37
3,637.00	13.31	298.52	3,575.58	263.21	-529.42	591.23	0.30	0.28	-0.41
3,668.00	13.34	297.15	3,605.74	266.55	-535.74	598.37	1.02	0.10	-4.42
3,700.00	13.52	296.57	3,636.87	269.91	-542.37	605.80	0.70	0.56	-1.81
3,732.00	13.21	294.60	3,668.00	273.10	-549.04	613.20	1.72	-0.97	-6.16
3,763.00	13.05	295.19	3,698.19	276.07	-555.43	620.24	0.67	-0.52	1.90
3,795.00	12.92	294.36	3,729.37	279.08	-561.95	627.42	0.71	-0.41	-2.59
3,827.00	13.16	294.91	3,760.55	282.09	-568.52	634.64	0.84	0.75	1.72
3,859.00	12.99	295.25	3,791.72	285.16	-575.07	641.87	0.58	-0.53	1.06
3,890.00	12.95	294.79	3,821.93	288.10	-581.38	648.83	0.36	-0.13	-1.48
3,922.00	12.93	296.13	3,853.12	291.18	-587.85	655.99	0.94	-0.06	4.19
3,954.00	12.58	294.45	3,884.33	294.20	-594.23	663.05	1.59	-1.09	-5.25
3,986.00	12.38	295.27	3,915.57	297.11	-600.51	669.96	0.84	-0.62	2.56
4,017.00	12.21	294.99	3,945.86	299.91	-606.48	676.56	0.58	-0.55	-0.90
4,049.00	11.73	293.21	3,977.16	302.62	-612.54	683.19	1.89	-1.50	-5.56
4,081.00	11.38	292.05	4,008.51	305.09	-618.46	689.58	1.31	-1.09	-3.62



# Scientific Drilling

## Survey Report

**Company:** Newfield Exploration Co.  
**Project:** Duchesne County, UT NAD83 UTC  
**Site:** Jonah Unit  
**Well:** Jonah Unit S-12-9-16  
**Wellbore:** OH  
**Design:** OH

**Local Co-ordinate Reference:** Well Jonah Unit S-12-9-16  
**TVD Reference:** GL 5426' & RKB 12' @ 5438.00ft (NDSI 2)  
**MD Reference:** GL 5426' & RKB 12' @ 5438.00ft (NDSI 2)  
**North Reference:** True  
**Survey Calculation Method:** Minimum Curvature  
**Database:** EDM 2003.16 Multi User DB

### Survey

Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Vertical Section (ft)	Dogleg Rate (°/100ft)	Build Rate (°/100ft)	Turn Rate (°/100ft)
4,112.00	11.09	289.31	4,038.92	307.22	-624.11	695.59	1.96	-0.94	-8.84
4,144.00	10.73	289.44	4,070.34	309.23	-629.82	701.59	1.13	-1.12	0.41
4,176.00	10.88	289.87	4,101.77	311.25	-635.47	707.55	0.53	0.47	1.34
4,208.00	10.63	291.72	4,133.21	313.37	-641.05	713.48	1.33	-0.78	5.78
4,239.00	10.26	292.02	4,163.70	315.46	-646.27	719.08	1.21	-1.19	0.97
4,271.00	10.07	292.20	4,195.20	317.59	-651.50	724.71	0.60	-0.59	0.56
4,302.00	10.17	294.71	4,225.71	319.75	-656.49	730.15	1.46	0.32	8.10
4,334.00	9.98	294.49	4,257.22	322.09	-661.58	735.74	0.61	-0.59	-0.69
4,366.00	10.11	296.62	4,288.73	324.49	-666.62	741.32	1.23	0.41	6.66
4,397.00	9.91	297.57	4,319.26	326.95	-671.42	746.71	0.84	-0.65	3.06
4,429.00	9.75	298.60	4,350.79	329.52	-676.24	752.17	0.74	-0.50	3.22
4,461.00	9.42	296.67	4,382.34	331.99	-680.95	757.50	1.44	-1.03	-6.03
4,493.00	9.24	296.00	4,413.92	334.29	-685.60	762.69	0.66	-0.56	-2.09
4,524.00	8.95	295.26	4,444.53	336.41	-690.02	767.59	1.01	-0.94	-2.39
4,556.00	8.79	293.56	4,476.15	338.45	-694.51	772.52	0.96	-0.50	-5.31
4,588.00	8.45	293.45	4,507.78	340.36	-698.91	777.30	1.06	-1.06	-0.34
4,619.00	8.40	292.44	4,538.45	342.14	-703.09	781.84	0.50	-0.16	-3.26
4,651.00	8.52	295.72	4,570.10	344.06	-707.39	786.54	1.55	0.37	10.25
4,683.00	8.54	298.72	4,601.75	346.23	-711.61	791.28	1.39	0.06	9.37
4,715.00	8.58	300.34	4,633.39	348.57	-715.75	796.04	0.76	0.12	5.06
4,746.00	8.14	298.35	4,664.06	350.78	-719.68	800.54	1.70	-1.42	-6.42
4,778.00	7.86	297.24	4,695.75	352.86	-723.62	804.99	1.00	-0.87	-3.47
4,810.00	7.61	295.52	4,727.46	354.78	-727.48	809.30	1.06	-0.78	-5.37
4,841.00	7.59	294.77	4,758.19	356.52	-731.19	813.40	0.33	-0.06	-2.42
4,873.00	7.57	293.03	4,789.91	358.23	-735.05	817.61	0.72	-0.06	-5.44
4,905.00	7.35	291.68	4,821.64	359.81	-738.89	821.75	0.88	-0.69	-4.22
4,937.00	7.26	290.65	4,853.38	361.28	-742.68	825.80	0.50	-0.28	-3.22
4,968.00	7.19	289.01	4,884.13	362.60	-746.35	829.67	0.70	-0.23	-5.29
5,000.00	6.90	289.50	4,915.89	363.90	-750.06	833.56	0.93	-0.91	1.53
5,032.00	6.87	291.75	4,947.66	365.25	-753.65	837.38	0.85	-0.09	7.03
5,063.00	7.00	294.44	4,978.43	366.71	-757.09	841.11	1.13	0.42	8.68
5,095.00	7.09	297.43	5,010.19	368.43	-760.62	845.03	1.18	0.28	9.34
5,127.00	7.16	297.54	5,041.94	370.26	-764.14	849.00	0.22	0.22	0.34
5,159.00	7.23	299.68	5,073.69	372.18	-767.65	853.01	0.87	0.22	6.69
5,190.00	7.59	302.36	5,104.43	374.24	-771.08	856.99	1.61	1.16	8.65
5,222.00	7.65	302.33	5,136.15	376.51	-774.66	861.22	0.19	0.19	-0.09
5,254.00	7.52	302.92	5,167.87	378.79	-778.22	865.42	0.47	-0.41	1.84
5,284.69	6.93	301.44	5,198.31	380.85	-781.49	869.26	2.00	-1.91	-4.83
<b>JU S-12-9-16 Target</b>									
5,286.00	6.91	301.37	5,199.62	380.93	-781.62	869.42	2.00	-1.90	-5.25
5,317.00	6.02	299.94	5,230.42	382.71	-784.62	872.90	2.92	-2.87	-4.61
5,349.00	5.77	299.47	5,262.25	384.34	-787.48	876.18	0.80	-0.78	-1.47
5,381.00	6.09	300.86	5,294.08	386.00	-790.33	879.48	1.10	1.00	4.34
5,413.00	6.48	301.67	5,325.89	387.82	-793.33	882.98	1.25	1.22	2.53
5,444.00	6.64	300.88	5,356.68	389.66	-796.36	886.51	0.59	0.52	-2.55
5,476.00	6.68	299.11	5,388.47	391.52	-799.57	890.21	0.65	0.12	-5.53
5,508.00	7.31	298.14	5,420.23	393.38	-802.99	894.11	2.00	1.97	-3.03
5,539.00	7.81	297.98	5,450.96	395.30	-806.59	898.18	1.61	1.61	-0.52
5,571.00	7.89	296.78	5,482.66	397.31	-810.47	902.55	0.57	0.25	-3.75
5,603.00	7.38	296.05	5,514.38	399.20	-814.28	906.81	1.62	-1.59	-2.28
5,634.00	6.99	294.36	5,545.13	400.85	-817.79	910.68	1.43	-1.26	-5.45
5,666.00	6.46	292.70	5,576.91	402.35	-821.22	914.42	1.76	-1.66	-5.19
5,698.00	6.63	291.08	5,608.70	403.71	-824.60	918.06	0.78	0.53	-5.06
5,730.00	7.03	290.74	5,640.48	405.07	-828.16	921.84	1.26	1.25	-1.06
5,761.00	7.31	290.38	5,671.23	406.43	-831.78	925.69	0.91	0.90	-1.16





# Scientific Drilling

## Survey Report

**Company:** Newfield Exploration Co.  
**Project:** Duchesne County, UT NAD83 UTC  
**Site:** Jonah Unit  
**Well:** Jonah Unit S-12-9-16  
**Wellbore:** OH  
**Design:** OH

**Local Co-ordinate Reference:** Well Jonah Unit S-12-9-16  
**TVD Reference:** GL 5426' & RKB 12' @ 5438.00ft (NDSI 2)  
**MD Reference:** GL 5426' & RKB 12' @ 5438.00ft (NDSI 2)  
**North Reference:** True  
**Survey Calculation Method:** Minimum Curvature  
**Database:** EDM 2003.16 Multi User DB

### Survey

Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Vertical Section (ft)	Dogleg Rate (°/100ft)	Build Rate (°/100ft)	Turn Rate (°/100ft)
5,793.00	7.15	289.20	5,702.98	407.79	-835.57	929.69	0.68	-0.50	-3.69
5,825.00	7.00	289.27	5,734.74	409.09	-839.29	933.59	0.47	-0.47	0.22
5,857.00	6.65	287.81	5,766.51	410.30	-842.90	937.36	1.22	-1.09	-4.56
5,888.00	6.56	286.37	5,797.30	411.35	-846.31	940.87	0.61	-0.29	-4.65
5,920.00	6.91	286.13	5,829.08	412.40	-849.91	944.56	1.10	1.09	-0.75
5,952.00	7.09	286.38	5,860.84	413.49	-853.65	948.39	0.57	0.56	0.78
5,983.00	6.94	283.41	5,891.61	414.46	-857.31	952.10	1.27	-0.48	-9.58
6,015.00	6.66	283.82	5,923.39	415.36	-860.99	955.79	0.89	-0.87	1.28
6,030.00	6.33	282.92	5,938.29	415.75	-862.64	957.44	2.30	-2.20	-6.00
6,082.00	6.33	282.92	5,989.97	417.03	-868.23	963.00	0.00	0.00	0.00

Projection to TD

### Targets

#### Target Name

- hit/miss target	Dip Angle (°)	Dip Dir. (°)	TVD (ft)	+N/-S (ft)	+E/-W (ft)	Northing (ft)	Easting (ft)	Latitude	Longitude
- Shape									
JU S-12-9-16 Target	0.00	0.00	5,200.00	385.25	-762.99	7,187,105.38	2,042,413.60	40° 2' 29.637 N	110° 3' 50.681 W
- actual wellpath misses target center by 19.09ft at 5284.73ft MD (5198.36 TVD, 380.85 N, -781.49 E)									
- Circle (radius 75.00)									
JU S-12-9-16 PBHL	0.00	0.00	5,980.00	385.25	-762.99	7,187,105.38	2,042,413.60	40° 2' 29.637 N	110° 3' 50.681 W
- actual wellpath misses target center by 108.17ft at 6059.99ft MD (5968.10 TVD, 416.49 N, -865.87 E)									
- Circle (radius 75.00)									

Checked By: \_\_\_\_\_ Approved By: \_\_\_\_\_ Date: \_\_\_\_\_

STATE OF UTAH  
DEPARTMENT OF NATURAL RESOURCES  
DIVISION OF OIL, GAS AND MINING

**SUNDRY NOTICES AND REPORTS ON WELLS**

Do not use this form for proposals to drill new wells, significantly deepen existing wells below current bottom-hole depth, recenter plugged wells, or to drill horizontal laterals. Use APPLICATION FOR PERMIT TO DRILL form for such proposals.

1. TYPE OF WELL: OIL WELL <input checked="" type="checkbox"/> GAS WELL <input type="checkbox"/> OTHER		5. LEASE DESIGNATION AND SERIAL NUMBER: USA UTU-035521
2. NAME OF OPERATOR: NEWFIELD PRODUCTION COMPANY		6. IF INDIAN, ALLOTTEE OR TRIBE NAME:
3. ADDRESS OF OPERATOR: Route 3 Box 3630 CITY Myton STATE UT ZIP 84052		7. UNIT or CA AGREEMENT NAME: JONAH UNIT
4. LOCATION OF WELL: FOOTAGES AT SURFACE:		8. WELL NAME and NUMBER: JONAH S-12-9-16
5. OTR/OTR. SECTION. TOWNSHIP. RANGE. MERIDIAN: SESE, 12, T9S, R16E		9. API NUMBER: 4301334010
		10. FIELD AND POOL, OR WILDCAT: MONUMENT BUTTE
		COUNTY: DUCHESNE
		STATE: UT

11. CHECK APPROPRIATE BOXES TO INDICATE NATURE OF NOTICE, REPORT, OR OTHER DATA

TYPE OF SUBMISSION	TYPE OF ACTION		
<input type="checkbox"/> NOTICE OF INTENT (Submit in Duplicate)  Approximate date work will _____	<input type="checkbox"/> ACIDIZE	<input type="checkbox"/> DEEPEN	<input type="checkbox"/> REPERFORATE CURRENT FORMATION
	<input type="checkbox"/> ALTER CASING	<input type="checkbox"/> FRACTURE TREAT	<input type="checkbox"/> SIDETRACK TO REPAIR WELL
	<input type="checkbox"/> CASING REPAIR	<input type="checkbox"/> NEW CONSTRUCTION	<input type="checkbox"/> TEMPORARITLY ABANDON
	<input type="checkbox"/> CHANGE TO PREVIOUS PLANS	<input type="checkbox"/> OPERATOR CHANGE	<input type="checkbox"/> TUBING REPAIR
	<input type="checkbox"/> CHANGE TUBING	<input type="checkbox"/> PLUG AND ABANDON	<input type="checkbox"/> VENT OR FLAIR
<input checked="" type="checkbox"/> SUBSEQUENT REPORT (Submit Original Form Only)  Date of Work Completion: 02/20/2009	<input type="checkbox"/> CHANGE WELL NAME	<input type="checkbox"/> PLUG BACK	<input type="checkbox"/> WATER DISPOSAL
	<input type="checkbox"/> CHANGE WELL STATUS	<input type="checkbox"/> PRODUCTION (START/STOP)	<input type="checkbox"/> WATER SHUT-OFF
	<input type="checkbox"/> COMMINGLE PRODUCING FORMATIONS	<input type="checkbox"/> RECLAMATION OF WELL SITE	<input checked="" type="checkbox"/> OTHER: - Weekly Status Report
	<input type="checkbox"/> CONVERT WELL TYPE	<input type="checkbox"/> RECOMPLETE - DIFFERENT FORMATION	

12. DESCRIBE PROPOSED OR COMPLETED OPERATIONS. Clearly show all pertinent details including dates, depths, volumes, etc.

The above subject well was completed on 01/21/09, attached is a daily completion status report.

NAME (PLEASE PRINT) Jentri Park TITLE Production Clerk  
SIGNATURE DATE 02/20/2009

(This space for State use only)

RECEIVED

FEB 23 2009

DIV. OF OIL, GAS & MINING

**Daily Activity Report****Format For Sundry****JONAH S-12-9-16****11/1/2008 To 3/28/2009****11/14/2008 Day: 1****Completion**

Rigless on 11/13/2008 - Install 5M frac head. NU 6" 5M Cameron BOP. RU H/O truck & pressure test casing, blind rams, frac head & casing valves to 4500 psi. RU Perforators LLC WLT w/ mast & run CBL under pressure. WLTD @ 5991' cement top @ 54'. Perforate stage #1 B2 sds @ 4946-54' w/ 3 1/8" slick guns (19 gram, .49" HE, 120°, 21.92" pen, EXP-3319-331 Titan) w/ 4 spf for total of 32 shots. 144 BWTR. SIFN.

**11/18/2008 Day: 2****Completion**

Rigless on 11/17/2008 - Day 2a. Stage #1, B2 sds. RU BJ Services. 125 psi on well. Frac B2 w/ 34,213#'s of 20/40 sand in 375 bbls of Lightning 17 fluid. Broke @ 3148 psi. Treated w/ ave pressure of 2150 psi @ ave rate of 23.2 BPM. ISIP 2275 psi. Leave pressure on well. 519 BWTR. See Day 2b. Day 2b, Stage #2 C sds. RU Lone Wolf, llc WLT, crane & Lubricator. RIH w/ Weatherford 5 1/2" 6K composite flow through frac plug & 16' perf gun. Set plug @ 4840'. Perforate C sds @ 4802-18' w/ 3-1/8" Slick Guns (.35"EH, 22.7 gram, 90°, 39" pen, Titan) w/ 4 spf for total of 64 shots. RU BJ Services. 1410 psi on well. Frac C sds w/ 55,806#'s of 20/40 sand in 485 bbls of Lightning 17 fluid. Broke @ 1673 psi. Treated w/ ave pressure of 2218 psi w/ ave rate of 18.7 BPM. ISIP 2534 psi. Leave pressure on well. 1004 BWTR. See day 2c Day 2c, Stage #3 D1 sds. RU Lone Wolf, llc WLT, crane & Lubricator. RIH w/ Weatherford 5 1/2" 6K composite flow through frac plug & 20' perf gun. Set plug @ 4680'. Perforate D1 sds @ 4630-50' w/ 3-1/8" Slick Guns (.35"EH, 22.7 gram, 90°, 39" pen, Titan) w/ 4 spf for total of 80 shots. RU BJ Services. 1758 psi on well. Frac D1 sds w/ 51,261#'s of 20/40 sand in 447 bbls of Lightning 17 fluid. Broke @ 2672 psi. Treated w/ ave pressure of 2082 psi w/ ave rate of 18.7 BPM. ISIP 2237 psi. Leave pressure on well. 1451 BWTR. See day 2d. Day 2d, Stage #4 PB10 sds. RU Lone Wolf, llc WLT, crane & Lubricator. RIH w/ Weatherford 5 1/2" 6K composite flow through frac plug & 10' perf gun. Set plug @ 4410'. Perforate PB10 sds @ 4358-68' w/ 3-1/8" Slick Guns (.35"EH, 22.7 gram, 90°, 39" pen, Titan) w/ 4 spf for total of 40 shots. Could not frac due to BJ pump break down. SWIFN.

**11/19/2008 Day: 3****Completion**

Rigless on 11/18/2008 - Day 3a, Stage #4 PB10 sds. RU BJ Services. 375 psi on well. Frac PB10 w/ 40,513#'s of 20/40 sand in bbls of Lightning 17 fluid. Broke @ 3451 psi. Treated w/ ave pressure of 2099 psi @ ave rate of 23.2 BPM. ISIP 2322 psi. Leave pressure on well. 1840 BWTR. See Day 3b. Day 3b, Stage #5 GB6 sds. RU Lone Wolf, llc WLT, crane & Lubricator. RIH w/ Weatherford 5 1/2" 6K composite flow through frac plug & 6' perf gun. Set plug @ 4240'. Perforate GB6 sds @ 4172-78' w/ 3-1/8" Slick Guns (.35"EH, 22.7 gram, 90°, 39" pen, Titan) w/ 4 spf for total of 24 shots. RU BJ Services. 1350 psi on well. Frac GB6 sds w/ 30,097#'s of 20/40 sand in 359 bbls of Lightning 17 fluid. Broke @ 3914 psi. Treated w/ ave pressure of 2167 psi w/ ave rate of 23.3 BPM. ISIP 2028 psi. Begin immediate flowback on 24/64 choke @ 3 BPM. Flowed for hrs & died. Rec BTF. SIWFN w/ BWTR.

**11/20/2008 Day: 4****Completion**

Western #2 on 11/19/2008 - MIRU Western #2. 75 psi on well. Bleed off pressure. ND Cameron BOP & 5M WH. NU 3M WH & Schaffer BOP. Talley, PU & RIH 4 3/4" chomp bit, bit sub & 136- jts of 2 7/8" J-55 tbg. Tagged sand @ 4201'. RU Nabors power swivel. Circulate sand & drill out plugs as follows: Sand @ 4201', Plug @ 4240' (Drilled out in 29 mins), No sand, Plug @ 4410' (Drilled out in 17 mins), Sand @ 4609', Plug @ 4680' (Drilled out in 19

mins), Tagged sand @ 4818', Plug @ 4840' (Drilled out in 30 mins). Circulate well clean w/ EOT @ 4856'. Drain pump & lines. SIWFN w/ 1747 BWTR.g

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**11/21/2008 Day: 5****Completion**

Western #2 on 11/20/2008 - 25 psi on tbg, 50 psi on csg. Bleed off pressure. Continue to TIH w/ tbg. Tagged fill @ 5691'. C/O to PBTD @ 6036'. LD 2 jts of tbg.. EOT @ 5970'. RU swab equipment. IFL @ sfc. Made 12 runs, Rec 152 BTF, FFL @ 1800', Trace of oil, No sand. RD swab equipment. TIH w/ 2 jts of tbg. Tagged fill @ 6024'. C/O to PBTD @ 6036'. LD 33 jts of tbg. TOH w/ 30 jts of tbg. EOT @ 4085'. SIWFN w/ 1718 BWTR.

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**1/22/2009 Day: 6****Completion**

Western #2 on 1/21/2009 - 50 psi on tbg, 50 psi on csg. Bleed off pressure. Continue to TIH w/ tbg. LD bit & bit sub. TIH w/ production tbg as follows: NC, 2- jts, SN, 1-jt, 159 jts of 2 7/8" J-55 tbg. ND BOP. Set TA w/ 16,000#'s of tension @ 4923', SN @ 4957', EOT @ 5021'. NU WH. Flush tbg w/ 60 BW. Prime up rod pump. PU & RIH w/ "A" grade rod string as follows: "CDI" 2 1/2" X 1 3/4" X 20' RHAC, 21,000# shear coupling, 4- 1 1/2" wt bars, 193- 7/8" guided rods (8 per), 1-8',1-6',1-4', 2-2' X 7/8" ponie rods, 1 1/2" X 22' polish rod. Hang head, Space out rods. Fill tbg w/ 3 BW. Pressure test to 800 psi w/ unit. RDMOSU. POP @ 3:30pm w/ 122" SL @ 5 SPM. 1735 BWTR. FINAL REPORT!!!!

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**Pertinent Files: Go to File List**